What the new power struggle means

(Page 25)

INDEX
175
150
125
100
75
50
25
0

BUSINESS WEEK

A McGRAW-HILL PUBLICATION FIFTY CENTS MAY 28, 1960

Why Ray R. Eppert eliminated Burroughs Corp.'s product divisions: Because "any company is nothing but a marketing organization."
(Marketing)

Inlaid Wataseal as used in dinette sets by the Howell Company, St. Charles, Ill.

4 beautiful examples of mind over matter, using PLIOVIC

Pearlescent Watahyde

Three-dimensional Wataseal as used in bathroom sets by Pearl-Wick Corp., New York, N.Y.

Iridescent Wataseal

Photographs taken with the cooperation of Harte & Co., Inc., New York, N.Y.— manufacturers of famous Wataseal and Watahyde vinyl fabrics.

Virtually anything that comes to a designer's mind can be achieved when high-quality vinyl resin is placed in the hands of expert processors.

The case in point: the strikingly beautiful, pearlescent, iridescent, three-dimensional and inlaid vinyl films shown above —all made with PLIOVIC.

PLIOVIC is used because, in the various grades available, it offers the physical properties and processing characteristics needed to make each film practical. Some examples: Good blending and dispersion qualities. Low fluxing and fusion temperatures. Excellent embossing and heat sealing. Good ink acceptance. Exceptional heat and light stability.

Whatever comes to your mind could well be put into practice through PLIOVIC—in films or a host of other products. For full details write: Goodyear, Chemical Division, Dept. Q-9415 Akron 16, Ohio.

lots of good things come from

GOODYEAR

CHEMICAL DIVISION

Pliovic—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

Watahyde, Wataseal—T. M.'s Harte & Co., Inc., New York, N.Y.

In BUSINESS this WEEK May 28, 1960

GENERAL BUSINESS

Page
BUSINESS OUTLOOK 19
WASHINGTON OUTLOOK 45
INTERNATIONAL OUTLOOK 159
PERSONAL BUSINESS 185
THE TREND 204
FIGURES OF THE WEEK 2
CHARTS OF THE WEEK 188
READERS REPORT 5

WHAT NEW POWER STRUGGLE MEANS 25
1. GLOBALLY: ALL EYES ARE WATCHING THE RUSSIANS 26
2. IN WASHINGTON: DEFENSE SHIFTS, PARTY WRANGLING .. 28
3. IN BUSINESS: NO SHOCK, FEW CHANGES 30
4. THE ECONOMY: A GENTLE UPWARD SHOVE 32

CLOSER TO SATELLITE PATROL OF GLOBE. Successful firing of Midas from Cape Canaveral will test ability to detect missile blasts on earth 33

RAILS MAKE UP TIME IN MERGERS. The past week's developments suggest that the strong lines seek union with other strong lines 34

IN BUSINESS. C-of-I index spurts to record high; GAO scolds Air Force over contractor; Hurley steps down at Curtiss-Wright; more price-rigging charges 40

THE DEPARTMENTS

BUSINESS ABROAD:
In Business Abroad 138
U. S. Companies Hang On in Cuba hoping Castro will change course 143

FINANCE:
Keeping Dividends on Even Keel 55
SEC Challenged on Stock Option. Utility holding company threatens to sue against unwritten ban on offering shares to top management 59
In Finance 61

GOVERNMENT:
In Washington 151
MATS' Wings Still Unclipped 153

INDUSTRIES:
They Said He Would Get Clawed. Instead of losing his shirt, Edward Myers is cashing in more and more on crustaceans 192
Formula for Profit—Middle-Income Rents. Builder Samuel Lefrak cashes in 199

LABOR:
In Labor 123
Work Rules Cloud Rail Prospect 127
Hoffa Seeks Anti-Monitor Law 129
Higher Salary for the Right Man. Workers in most demand are getting a better break in starting pay 133
Engineers Say No. They reject unionization in vote at Western Electric 134

MANAGEMENT:
More Voices Raised At Annual Meetings. Officially, shareholders are welcome, but privately some companies think they're a nuisance 165
In Management 171

MARKETING:
Burroughs Puts Sales Under a Single Hat and ends a three-year experiment in organization by product lines 62
Courting the Customer After the Sale Is Made. Polaroid teaches camera owners ... 70
In Marketing 77

THE MARKETS:
Outside Experts Spot Buys For Energy Fund. No-load investment outfit does not have research staff of its own. It thrives on off-beat growth shares 172
Wall Street Talks 178
In the Markets 180

NEW PRODUCTS:
Prefabing on a Big Scale. How a New York company preassembles a chemical process plant in six building blocks 107

PRODUCTION:
Tool Does Everything Except Loaf on Job. TransfeRobot is designed to replace most workers in repetitive assembly processes 110
Computer Is the Boss in Steel Rolling Mill 115
Assaying Ford's Steel Process 118

REGIONS:
Sixties Off to a Slow Start. Decade's first quarter barely tops '59 79
Indiana—Soft Spots but No Gloom. State's durable goods economy shows some disturbing elements amid signs of prosperity 80

RESEARCH:
For Steak, Grandpop's the Key. Cattle industry will be revolutionized by Texas A&M discovery that heredity governs "gainability" and tenderness of beef 95
In Research 98

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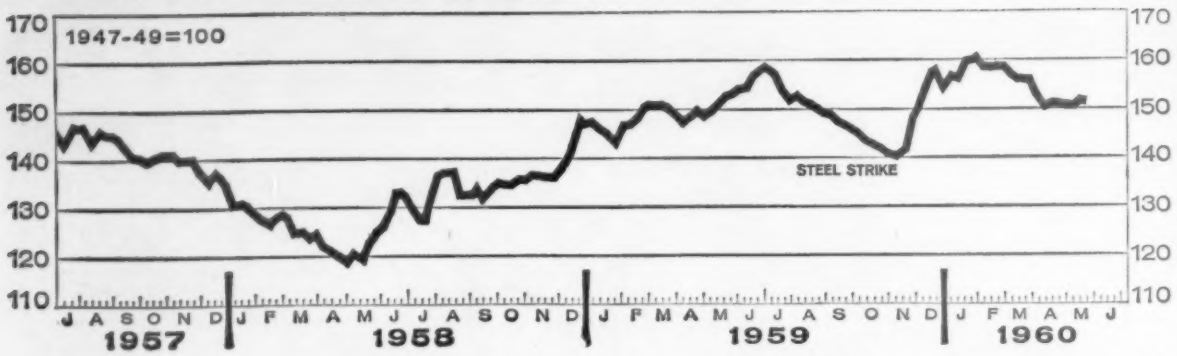
NUMBER 1604

FIGURES of the WEEK



	1953-55 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
BUSINESS WEEK INDEX (chart)	**133.3**	**153.8**	**151.5**	**152.6r**	**152.3***
PRODUCTION					
Steel ingot (thous. of tons)	2,032	2,650	2,210	2,031r	1,906
Automobiles	125,553	133,568	144,886	145,917r	155,153
Engineering const. awards (Eng. News-Rec. 4-wk. daily av. in thous.)	$52,412	$81,948	$83,560	$79,475	$75,140
Electric power (millions of kilowatt-hours)	10,819	12,931	13,213	13,350	13,468
Crude oil and condensate (daily av., thous. of bbl.)	6,536	7,216	6,983	6,794	6,864
Bituminous coal (daily av., thous. of tons)	1,455	1,391	1,468	1,379r	1,366
Paperboard (tons)	247,488	317,985	291,076	311,066	325,053
TRADE					
Carloadings: mfrs., miscellaneous and l.c.l. (daily av., thous. of cars)	70	66	61	61	61
Carloadings: all others (daily av., thous. of cars)	47	50	42	46	46
Department store sales index (1947-49 = 100, not seasonally adjusted)	121	137	156	156	134
Business failures (Dun & Bradstreet, number)	198	259	283	304	313
PRICES					
Industrial raw materials, daily index (BLS, 1947-49 = 100)	89.2	92.0	92.5	93.3	93.5
Foodstuffs, daily index (BLS, 1947-49 = 100)	90.5	82.7	76.2	76.9	77.0
Print cloth (spot and nearby, yd.)	19.8¢	19.1¢	20.5¢	20.8¢	20.9¢
Finished steel, index (BLS, 1947-49 = 100)	143.9	186.7	186.8	186.8	186.8
Scrap steel composite (Iron Age, ton)	$36.10	$35.83	$33.50	$33.17	$32.50
Copper (electrolytic, delivered price, E&MJ, lb.)	32.394¢	31.555¢	33.000¢	33.000¢	33.000¢
Aluminum, primary pig (U. S. del., E&MJ, lb.)	20.6¢	24.7¢	26.0¢	26.0¢	26.0¢
Aluminum, secondary alloy #380, 1% zinc (U. S. del., E&MJ, lb.)	††	22.83¢	25.05¢	25.01¢	25.02¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.34	$2.06	$2.10	$2.03	$1.97
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	34.57¢	34.63¢	32.11¢	32.17¢	32.20¢
Wool tops (Boston, lb.)	$1.96	$1.77	$1.71	$1.73	$1.72
FINANCE					
500 stocks composite, price index (S&P's, 1941-43 = 10)	31.64	58.19	55.19	55.26	55.73
Medium grade corporate bond yield (Baa issues, Moody's)	3.59%	5.00%	5.23%	5.28%	5.28%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate)	2-2½%	3⅜%	4¼%	4¼%	4¼%
BANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	††	60,454	61,285	58,695	58,040
Total loans and investments, reporting member banks	††	102,696	103,605	102,685r	102,914
Commercial, industrial, and agricultural loans, reporting member banks	††	32,834	31,878	31,961	32,141
U. S. gov't guaranteed obligations held, reporting member banks	††	31,549	26,187	25,703r	25,790
Total federal reserve credit outstanding	26,424	27,989	27,690	27,371	27,480

MONTHLY FIGURES OF THE WEEK		1953-55 Average	Year Ago	Month Ago	Latest Month
Cost of living (U. S. Dept. of Labor BLS, 1947-49 = 100)	April	114.6	123.9	125.7	126.2
McGraw-Hill Indexes of New Orders (1950 = 100)					
New Orders for machinery, except electrical (seasonally adjusted)	April	104	187	173	173
Construction & mining machinery	April	111	207	194	198
Engines & turbines	April	106	208	170	201
Pumps & compressors	April	120	250	345	310
Metalworking machinery	April	125	187	169	155
Other industrial machinery	April	95	182	167	148
Office equipment	April	109	194	245	225
New contracts for industrial building	April	128	127	132	139

* *Preliminary, week ended May 21, 1960.*
‡ *Not available.*
r *Revised.*
§ *Date for 'Latest Week' on each series on request.*

THE PICTURES—Cover—Gene Pyle; 25—(top) WW, (third down) C. A. Buzak; 26—WW; 30—C. A. Buzak; 31—(left) Ernest Reshovsky, (center) C. A. Buzak, (right) Bill Diehl, Jr.; 62—Gene Pyle; 70-71—Polaroid Corp.; 80—Ed Nano; 81—(top) Ed Nano, (bot. left) Grant Compton, (bot. right) Ed Nano; 95—Texas A. & M.; 96—Lockheed Aircraft Corp.; 98—Alco Products, Inc.; 107—(top) Tibor Hirsh, (bot.) Stephen Michel; 109—(top) Motorola, (bot.) Grant Compton; 110-111—Noel Clark; 115—U. S. Steel Corp.; 143—WW; 145—WW; 153 (left) Jim Mahan, (right) WW; 165—(top & center) WW, (bot.) UPI; 171—Eastman Kodak Co.; 172-173—Grant Compton; 192-193-194—George Woodruff; 199—Lefrak Organization.

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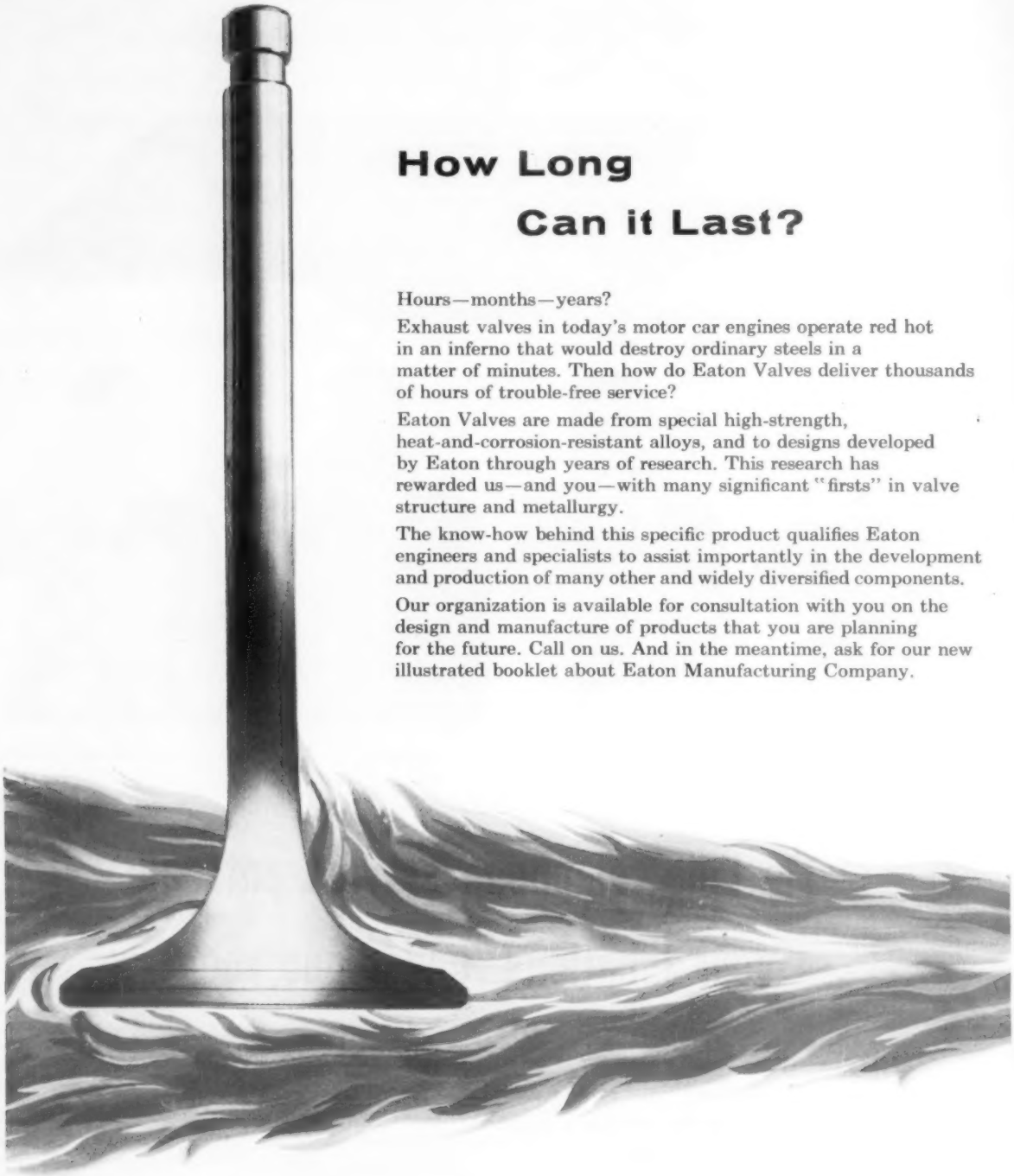

How Long Can it Last?

Hours—months—years?

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Eaton Valves are made from special high-strength, heat-and-corrosion-resistant alloys, and to designs developed by Eaton through years of research. This research has rewarded us—and you—with many significant "firsts" in valve structure and metallurgy.

The know-how behind this specific product qualifies Eaton engineers and specialists to assist importantly in the development and production of many other and widely diversified components.

Our organization is available for consultation with you on the design and manufacture of products that you are planning for the future. Call on us. And in the meantime, ask for our new illustrated booklet about Eaton Manufacturing Company.

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READERS REPORT

Not Too Helpful

Dear Sir:

Your More Push Behind Our Improving Exports [BW—May7 '60,p28] preceded by Ex-Im Banks New Role in Exports [BW—Mar. 26'60,p134] were concise, to the point, and of course, quite informative. While these planned programs must have bolstered the morale of many Americans, mine wasn't.

Needless to say the movement is in the right direction and as such all due credit and support should be given to the plan. My disappointment rests on the fact that our present predicament is not predicated solely on the fear of venturing saleswise into certain political hazardous areas or extending credit to poor credit risks as it is one of having repeatedly over-priced and under-termed ourselves out of many potential foreign sales.

Of course a few firms, those with comparatively no serious competition or those with exceptionally high mark-ups, will secure some benefit from the programs. With the accounts receivables guaranteed from both political and credit risks they will find themselves in an excellent position to secure additional working funds to offset those that would be frozen for months through a more liberal credit policy. Unfortunately the greater majority, industries that also play very important roles in our economy, are not by any stretch of the imagination in such an enviable position. . . .

C. N. BOCCANFUSO
NEW YORK, N. Y.

Federated Sales

Dear Sir:

. . . You carried a list of sales and earnings [BW—Apr.23'60, p43] of the nation's 20 largest retailers. Federated is included in this list but somehow the wrong figures were used.

The list for Federated as it appears in the magazine is as follows:

1959 Sales (in thousands)	*Change from 1958*	*1959 Earnings (in thousands)*	*Change from 1958*	*Profit 1958*	*Margin 1959*
$702,749	*7.6%*	*$30,215*	*7.6%*	*4.3*	*4.3%*

It should be as listed below:

$759,918	*8.1%*	*$33,883*	*12.1%*	*4.5*	*4.5%*

GENE BURKE
MILBURN McCARTY ASSOCIATES, INC.
NEW YORK, N. Y.

(THIS MESSAGE WILL APPEAR IN THE PROGRAM OF THE TWELFTH INTERNATIONAL ADVERTISING ASSOCIATION CONGRESS AT THE WALDORF-ASTORIA IN NEW YORK, JUNE 1-3, 1960.)

An Open Letter

to international managements

(and managements which should become internationally-minded)

Since this is a Congress on the problems of "international marketing" it seems a proper time to face a few facts together.

Trade between the countries of the free world is not going to reach its full potential as speedily as the times demand unless those of us already committed to international trade face up to its problems. We must also encourage "domestic-minded" companies to join in our efforts.

It is imperative that we consider the needs of the under-developed, as well as the industrial countries, in our community. Because the fight for a free world requires that these growth countries be brought up to strength *fast* through stabilized governments and sound economies, their development is of primary concern to governments, business, and private citizens everywhere.

There is a particularly big job ahead for those companies which produce the basic means for improving communications and living standards . . . specifically, for the makers of machines which produce other machines and finished goods, which build roads, supply power to factories, or increase agricultural production. And for shipbuilders, airlines, and aircraft, automotive and locomotive manufacturers.

Opportunity, as well as responsibility, exists in full measure for such companies. Participation in world commerce can provide the dual rewards of good citizenship and good business for both parties to the trade. The financial returns of world marketing can be commensurate with its risks.

There must, however, be a realistic recognition that profits will not come overnight. One cannot enter any "foreign" market in the expectation of a "quick killing" and do himself, his country, or the free world any lasting good. Nor can we assume that the same credit terms, working agreements, or operating methods which apply at home will be valid overseas.

It will pay to be flexible and open-minded about terms of trade. It may be necessary and practical to participate in the financing of companies who are potential customers. The abilities and aptitudes of associates abroad should be recognized and rewarded accordingly. Very special attention should be given to developing effective means of achieving proper community relations.

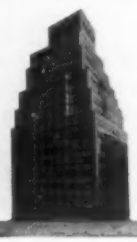
Above all, we must be strong in faith in the ultimate success of our international ventures and devote *all-out effort and top talent* to them. Many companies with a tremendous "national" success fail to realize their potential abroad because of limited effort.

Because a company starts afresh to build a name in each country, an important part of its investment should be earmarked for public relations, sales promotion, and advertising. Many companies who fell heir to their foreign trade following World War II when manufactured goods were in short supply *have never yet "gone out after the sale."*

Total investment in advertising to overseas markets is pitifully small. Media which should be used to complement each other are forced to fight among themselves for a share of the limited total budgets. Advertising managers and agencies settle for smaller units of space and time and less frequency than they know are needed for an effective campaign. Potential customers are consequently not convinced and miss out on the chance to expand their own operations. *Everybody loses.*

What is the answer? There is no single solution, of course. But, certainly, the place to start is with an approach to international marketing comparable to domestic effort, with adequate staffing, realistic sales objectives and a budget large enough for community relations programs, sales promotion, and for advertising in all appropriate media – local and international.

These are goals, we believe, toward which every member of the International Advertising Association can bend his full effort, to the benefit of himself, his company, his country, and the free world.



Vision
INCORPORATED

HEADQUARTERS: VISION BUILDING, 635 MADISON AVENUE, NEW YORK 22, N. Y. OFFICES IN: WASHINGTON, D.C. CHICAGO • SAN FRANCISCO • LOS ANGELES • NEW LONDON • ATLANTA ■ MEXICO CITY • SANTIAGO • BUENOS AIRES • BOGOTA SAO PAULO • RIO DE JANEIRO ■ LONDON • FRANKFURT • TOKYO

Battery of Gardner-Denver "Air Trac" drills preparing blast holes for tunnel entrance.

Bronx "cave men" speed big expressway project

Dwarfed by the immensity of the cavelike excavation they are helping to make, the workmen shown above are operating in one of the country's most densely populated sections—New York's borough of the Bronx. The project is the Cross Bronx Expressway, which links the George Washington Bridge approach on the western edge of the city with the Bronx River Parkway.

Because most of the expressway's route is through solid rock, necessitating rock cuts as deep as 40 ft., latest-type equipment was chosen to speed the work of blasthole drilling. This explains the presence of so many Gardner-Denver mobile "Air Trac"® drills on the project.

In many sections of the country where modern highways are most needed, extensive rock formations are barriers to progress.

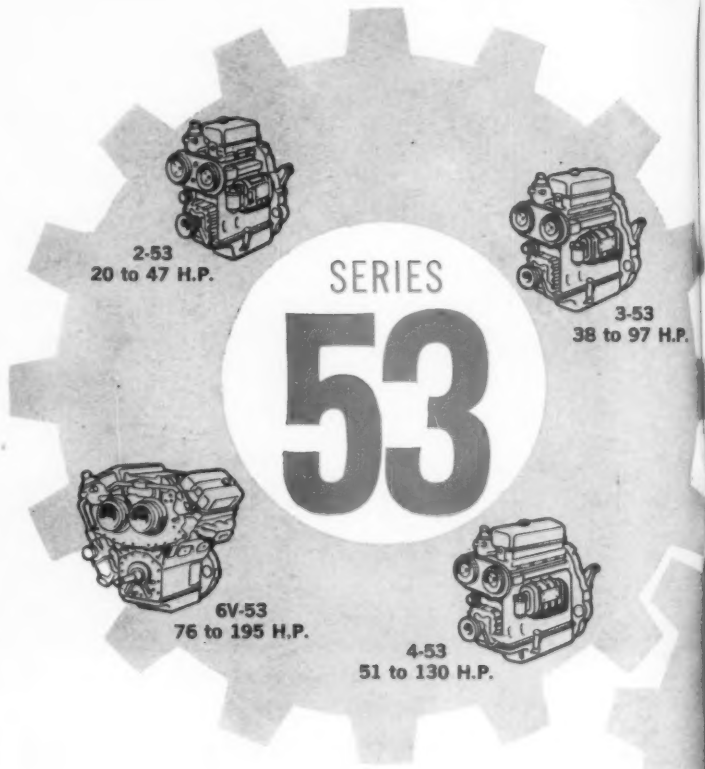
Removing such barriers in the shortest possible time, and at lowest cost, is a major consideration with highway contractors. That is why Gardner-Denver rock drills, powered by Gardner-Denver air compressors, are so often chosen for the work. Gardner-Denver Company, Quincy, Illinois.

GARDNER-DENVER Since 1859

EQUIPMENT TODAY FOR THE CHALLENGE OF TOMORROW

GARDNER - DENVER

GM sets the standard for DIESEL ALL-PURPOSE POWER LINE with a family



"A family of engines geared to every job." The farsighted engineering design which has made this statement a reality enables you to get all the savings built into the family of Series 53*, 71* and 110* engines. Yet you can still buy or specify your exact engine requirement.

You get engines tailored in power, size and weight to your exact needs—20 to 1650 H.P. in only three cylinder sizes.

Because of wide interchangeability of parts within the family, replacement parts cost less. You can protect new engines with current parts inventories. You can also meet changing horsepower needs and still keep the benefits of present operating know-how, maintenance training and ex.sting parts inventories.

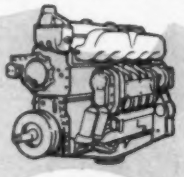
Wherever you use engines, you'll find Series 53*, 71* and 110* GM Diesels will raise your productivity—and profits. Your GM Diesel distributor can prove it—he's in the Yellow Pages under "Engines, Diesel," or write us direct.

**Refers to cubic inches displacement per cylinder.*

DIESEL PRODUCTIVITY

of engines geared to every job

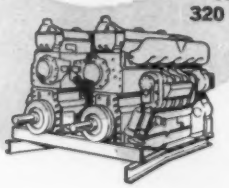
CHOOSE FROM THREE SERIES...20 TO 1650 H.P....ONLY THREE CYLINDER SIZES



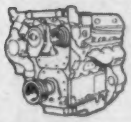
6-110
160 to 335 H.P.

SERIES
110

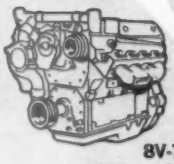
Twin 6-110
320 to 670 H.P.



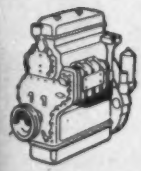
6-71
112 to 252 H.P.



6V-71
112 to 252 H.P.

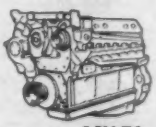


8V-71
150 to 336 H.P.

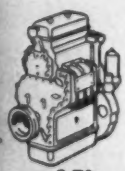


4-71
69 to 167 H.P.

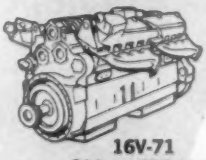
SERIES
71



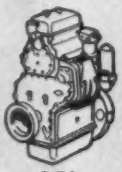
12V-71
224 to 504 H.P.



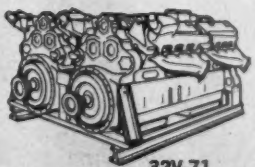
3-71
51 to 118 H.P.



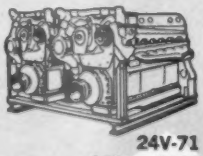
16V-71
300 to 675 H.P.



2-71
33 to 67 H.P.



32V-71
600 to 1350 H.P.
(Turbocharged—1650 H.P.)



24V-71
448 to 1008 H.P.

GM DIESEL

DETROIT DIESEL ENGINE DIVISION,
GENERAL MOTORS, DETROIT 28, MICH.

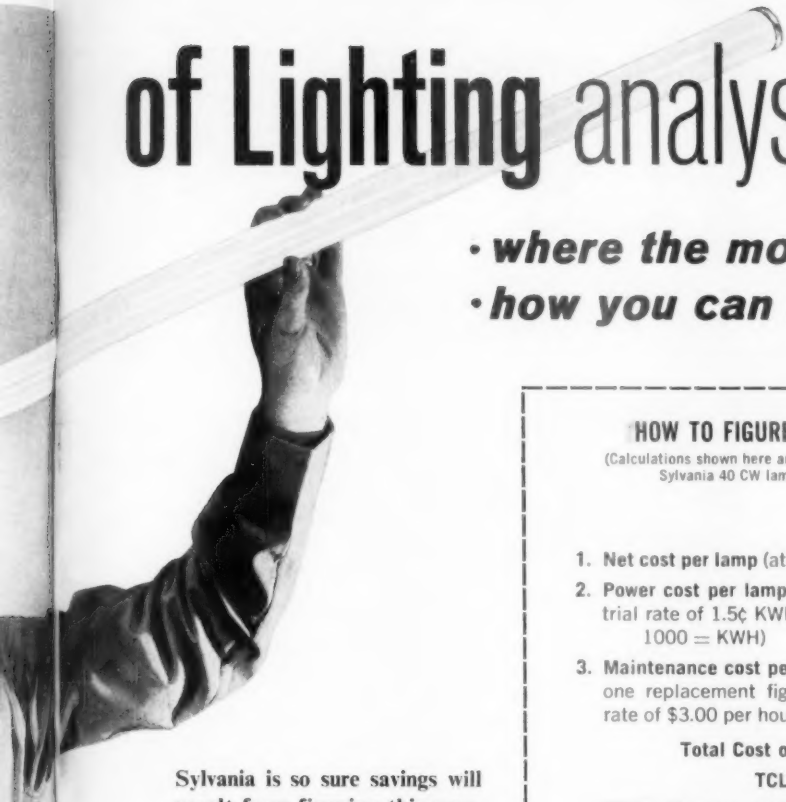
In Canada: GENERAL MOTORS DIESEL LIMITED, London, Ontario
Parts and Service Worldwide

If you just figure the cost of lamps you only know about 1/10th of the story!

Only a **Total Cost**

of Lighting analysis can show

• *where the money really goes*
• *how you can really cut expenses*



HOW TO FIGURE YOUR TOTAL COST OF LIGHTING (TCL)

(Calculations shown here are based on the average 7500-hour operating life of a standard Sylvania 40 CW lamp which requires 46 watts of power including ballast.)

	National average per lamp	Put your costs here
1. **Net cost per lamp** (at average discount of 35%)	$ .81	
2. **Power cost per lamp** based on average industrial rate of 1.5¢ KWH (watts × 7500 hours ÷ 1000 = KWH)	5.18	
3. **Maintenance cost per lamp** (one cleaning plus one replacement figured at average industry rate of $3.00 per hour)	2.00	
Total Cost of Lighting (TCL) per lamp	7.99	
TCL for 100-lamp installation	$799.00	
(Note: If you use 100 Sylvania lamps, figure the 8% extra lighting value of 8 lamps over 100 ordinary lamps.*)	× .08	
Saving through extra Sylvania lighting value*	$ 63.92	

*These are the extra dollars you would have to spend per 100 ordinary lamps to get the equal lumen hours of light you get from Sylvania.

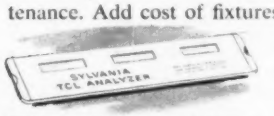
Sylvania is so sure savings will result from figuring this way, we'll even send our representative to show you how (or you can do it here—now!)

With cost of lamps amounting to only about 10% of your *T*otal *C*ost of *L*ighting (TCL), why should Sylvania be so interested in this new over-all way of figuring? Two good reasons:

First, because TCL best demonstrates the over-all superiority of Sylvania fluorescents.

Second, because we believe that just in figuring TCL you'll discover a number of new opportunities for shaving costs. And that's one of the things we like to help you do.

What *is* your TCL? Cost of lamps *plus* power *plus* maintenance. Add cost of fixtures, too, if you're remodeling.



WITH TCL ANALYZER, a Sylvania representative can figure in minutes how the special conditions in your plant affect Total Cost of Lighting.

Our representative can help figure special conditions in your plant. With his Analyzer Kit, he can do it in minutes, give you a complete lighting analysis *free*. He can also show you how and why, for every penny you spend for lamps, power and maintenance, you get more value with Sylvania.

And he'll show how Sylvania backs its claims to lowest TCL with an *exclusive* Light Insurance Policy. *Guarantees* Sylvania fluorescents will perform better *in your own opinion* than the brand you are now using—or your money back!

Call your Sylvania representative. Or write us: Sylvania Lighting Products, a Division of Sylvania Electric Products Inc., Dept. 57, 60 Boston St., Salem, Mass. In Canada: Sylvania Electric (Canada), Ltd., Box 2190, Station "O," Montreal 9.

EXCLUSIVE SYLVANIA LIGHT INSURANCE POLICY is your guarantee of lowest TCL—or your money back!

SYLVANIA

Subsidiary of **GENERAL TELEPHONE & ELECTRONICS**

ANNOUNCING A NEW CORPORATE NAME

for The Garlock Packing Company

Garlock Inc. becomes the new name for The Garlock Packing Company, Palmyra, N. Y., to reflect more accurately its broad diversification of products and markets.

Originally established to manufacture mechanical packings, Garlock now produces over 2,000 different styles of packings, gaskets, seals, molded and extruded rubber and plastic products for every major industry.

The new corporate name, Garlock Inc., more closely identifies this 73-year-old company with the growth and development of its product lines. *Today, industry goes to Garlock for such widely diversified products as:*

- Hydraulic-Pneumatic Packings
- Oil and Grease Seals
- Gasketing and Expansion Joints
- Braided Packings
- Molded and Extruded Rubber Parts
- Plastic Stock Shapes and Fabricated Parts
- Mechanical Seals for Rotating Shafts
- Metal Packings
- Leather Packings
- Electronic Components
- Dry Bearing Materials
- Fluorocarbon Tank Linings
- Missile and Rocket Components

To help you in selecting or applying these products, Garlock offers the services of over 126 thoroughly-trained sales engineers, 175 electronic component manufacturers' representatives, 180 authorized bearing distributors and 69 foreign distributors. Conveniently located warehouses and stocking points assure Garlock customers of prompt delivery.

At Garlock Inc., design and development of new or improved products and materials is an ever-present objective. To this end Garlock maintains extensive research and laboratory-test facilities. In addition, Garlock engineers and chemists are always ready to work with you in seeking solutions to tough application problems.

GARLOCK

To find out more about "the new Garlock," call the nearest of our 26 sales offices, or write to Garlock Inc., Palmyra, N. Y. *To assure prompt attention,* please refer to *Garlock Inc.* on all future correspondence and orders.

Canadian Div.: Garlock of Canada Ltd.

Order from the Garlock 2,000 . . . two thousand different styles of Packings, Gaskets, Seals, Molded and Extruded Rubber, Plastic Products.

Hydraulic-Pneumatic Packings

Expansion Joints

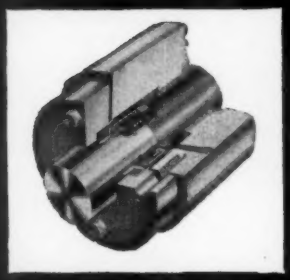
Molded and Extruded Rubber Parts

Plastic Stock Shapes and Fabricated Parts

Fluorocarbon Tank Linings

Oil and Grease Seals

Braided Packings

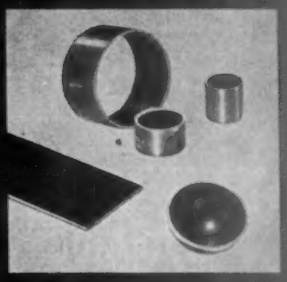


Mechanical Shaft Seals

Metal Packings

Gasketing

Spiral Wound Gaskets



Dry Bearing Material

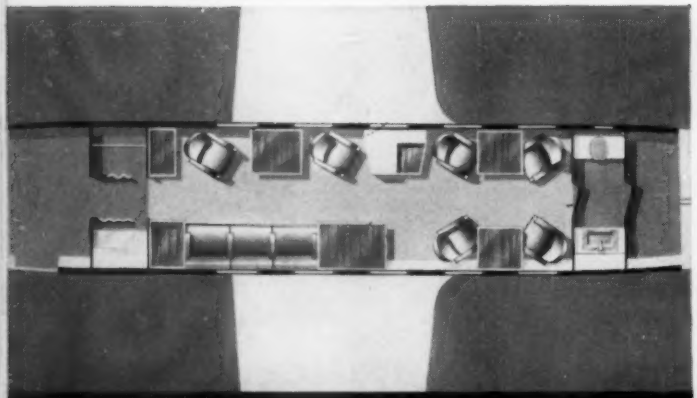
INC.

Missile and Rocket Components

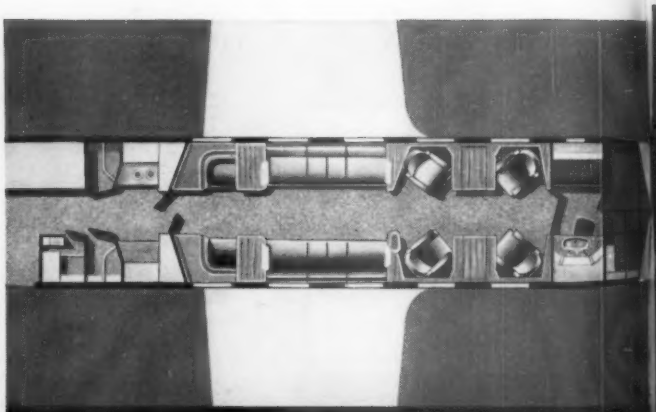
Leather Packings

Electronic Components

THE GRUMMAN "GULFSTREAM"



Picked by an Oil Company



Selected by a Steel Company

Isn't this

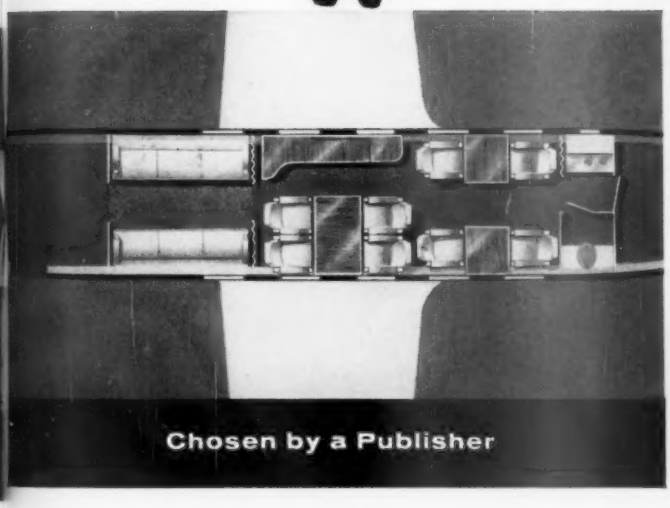
The Business Aircraft

for your Company, too?

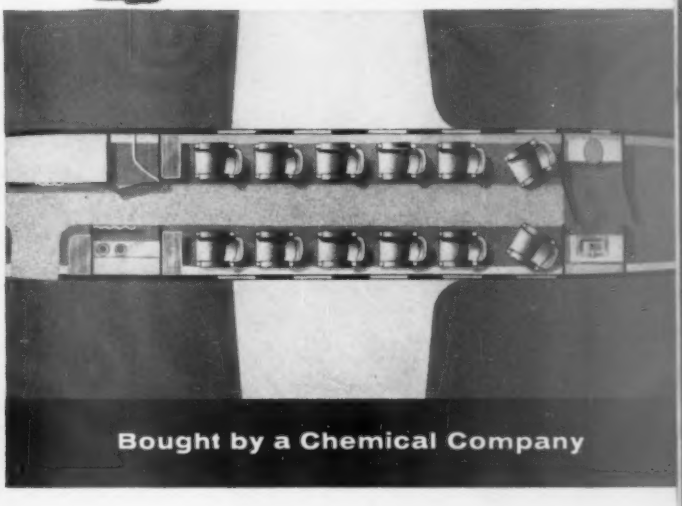
The cutaway views above show interior layouts selected by four different purchasers of the Gulfstream. Each interior has been designed and fitted out to individual specification.

Many leading American companies have selected the exceptional Gulfstream over all other business aircraft on the market. Thirty-six are already operating in different parts of the country.

The Gulfstream will carry 10, 12 and 14 passengers. You will cruise at 350 mph. Power: 2 superb Rolls-Royce Dart engines. You have a range of 2,200 miles, plus reserves of 200 miles



Chosen by a Publisher



Bought by a Chemical Company

and 45 minutes. And the Gulfstream has what some aircraft in its class *haven't*—the ability to get in and out of the smaller airports with ease . . . those with 3,500-4,000 foot runways.

At 25,000 feet, the pressurized Gulfstream provides a cabin altitude of 5,500 feet. You fly in air-conditioned comfort—and safety—above the weather and traffic.

To date, Grumman has built 25,000 aircraft. This experience is aboard the Gulfstream. And Grumman engineering provides a structure designed to withstand fatigue for the equivalent of more than 50 years of operation! Performance, utility, reliability, safety? Of course. And great beauty, too.

The Grumman Gulfstream is an extraordinary business transport. We think your executives will agree with your chief pilot's evaluation of the aircraft when our distributor demonstrates its many outstanding features.

Corporation executives and pilots are invited to inspect the Gulfstream and arrange for demonstration flights through one of the following distributors: Atlantic Aviation, Wilmington, Delaware; Pacific Airmotive, Burbank, Cal.; Southwest Airmotive, Dallas, Texas; Timmins Aviation, Montreal.

Aboard the GULFSTREAM, Beauty is more than skin deep!

GRUMMAN

AIRCRAFT ENGINEERING CORPORATION

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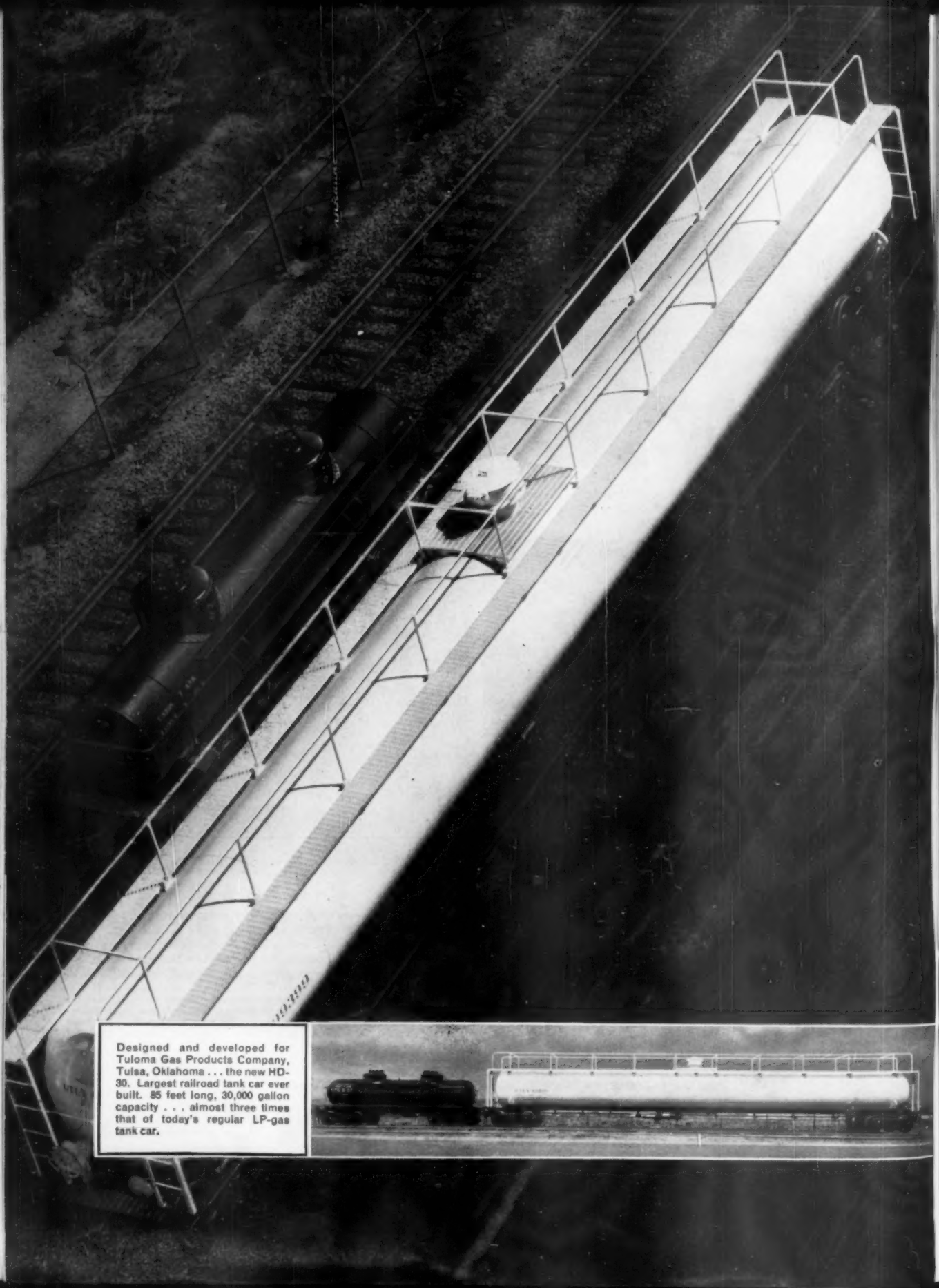

Designed and developed for Tuloma Gas Products Company, Tulsa, Oklahoma . . . the new HD-30. Largest railroad tank car ever built. 85 feet long, 30,000 gallon capacity . . . almost three times that of today's regular LP-gas tank car.

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To shippers of liquids . . . such as chemicals, vegetable oils, petroleum products, liquid fertilizers . . . we're the UNION TANK CAR COMPANY . . . largest owner and operator of tank cars in the world.

During the last seventy years, Union has transported almost every liquid product known.

For the petroleum industry our tank cars move gasoline, LP-gas, Diesel oil, fuel oil and lubricating oil . . . safely and economically to every part of the United States.

For shippers of other bulk liquids, our cars answer a variety of individual needs . . . with special linings, heating coils, insulation, and other custom features developed by Union.

The originality and skill of our engineering department has resulted in many spectacular advances. In 1957 Union introduced the "Hot Dog" Tank Car. First basic change in tank car design in forty years! From it came the giant 21,800 gallon car . . . largest ever built.

Now Union has created an even larger car. The HD-30 for the transportation of LP-gas. Capacity . . . 30,000 gallons! More economical for railroads to handle. New economy for the shipper.

If you have a liquid product that you want to ship in bulk, it will pay you to talk to us. Ours is a leasing operation . . . it eliminates the need for owning a tank car fleet of your own. You'll find there are many advantages. The newest, most specialized equipment is available to you without costly investment. All maintenance is provided by Union. Your capital is freed for high return uses. And a more favorable tax situation may result.

We'll welcome your inquiry.

Union Tank Car Company is one member of the Union Tank Car group of companies, each serving industry in a host of specialized ways.

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The Lindsay Company • Phoenix Manufacturing Company • Products Tank Line of Canada, Ltd.
Refiners Transport & Terminal Corporation • Smith & Loveless • Sparling Tank & Mfg. Co.
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Now you can get immediate delivery on new lower-cost Reynolds aluminum building sheet—any size, any quantity—from large Ryerson stocks.

These sheets open many new opportunities for you to gain the advantages of aluminum without paying the higher price. For example, a company making electrical enclosures for exposed locations was having a problem keeping painted surfaces from peeling and rusting. This manufacturer hadn't considered aluminum because price seemed prohibitive.

A Ryerson specialist recommended a switch to new aluminum building sheet. No painting was required because these sheets won't rust—and resist corrosion indefinitely.

In hundreds of applications you'll find a definite price, product and profit advantage when you use new aluminum building sheet. And remember, Ryerson has worked with more companies in more applications of this new building sheet than any one in the industry. This is a background of experience that can best help you evaluate application possibilities in your operations. Get all the facts from your Ryerson aluminum specialist soon.

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BUSINESS OUTLOOK

BUSINESS WEEK
MAY 28, 1960

Steel operations this week dipped below 70% of capacity, the lowest since the industry began recovering from the effects of the strike.

However dreary this fact was, it certainly wasn't unexpected.

And it was about the only truly dreary fact in sight during a week when businessmen were groping for the new feel of things (page 25).

After a little time to ponder **international developments and their domestic effects,** it was the rare individual or industry which could see that anything had happened to alter existing programs and plans.

Something more for the military? Probably. But not enough to have any nearby effect on very many companies but the prime contractors.

Certainly **few people see any early change in inventory policy.**

This tends to bear out **the feeling in steel circles that even this week's estimated operating rate of 66.9% isn't the bottom.**

The rate may sink from here to early July (when there will be a coincidence of the July 4 holiday, metal-working vacations, and auto changeovers). Operations then may even puncture 60%, Iron Age said this week.

The magazine Steel didn't put it in terms of figures, but opined that no upturn was in sight for another 60 days.

Viewed theoretically (and admitting that figures on this subject are slippery), **it might seem that inventory caution was being overdone.**

The dollar value of inventories held by manufacturers of durable goods is only a shade higher than in 1957. Allowing for prices, this doubtless means **physical volume is appreciably below 1957.**

In physical terms **metalworking still is several percentage points higher than in 1957** and seems to be stabilizing.

Compounding inventory gloom now is the **heavy stock of durables at the retail level**—autos and some heavy appliances, particularly.

Auto makers have no plans for cutting output sharply any time soon. But a couple of **shutdowns in appliances** have been announced.

These things tend to hold back the placing of new orders for steel, but this seems sure to change by August—and a turn might come sooner.

—•—

Auto sales this year won't come up to the rosiest early forecasts.

Up to this week, for example, **General Motors** stuck to its original **7-million-car** prediction (including imports). Now the corporation has **pulled down to 6¼-million** for cars produced in this country—which would still add up to a very respectable 6.8-million when imports are added.

Groans are just now beginning to come audibly from auto dealers as they contemplate **the size of the cleanup job on 1960 models.** And you can bet the groans will shortly be turning to screams.

"Satisfactory" sales from late March to date, have just whetted Detroit's appetite. Production is projected at the present level well into June—if not through to the end of the month.

And **that million-car dealer stock still hasn't been dented.**

Two things, over and above the size of field stocks, cast something of a cloud over sales prospects for 1960 models in July and August:

- **The used car market** isn't good; some comments are stronger than that.
- **Sales contests** were started before the end of winter. What more, dealers wonder, can be offered as "incentives" for the cleanup?

The "incentives" for car salesmen will take care of themselves.

Dealers have been making a little better margin this year than last (permitting "clearance" pricing) while the auto companies can squeeze out a few more dollars (for last-ditch contests).

Used cars now are hard to sell and prices have skidded. They were in good demand throughout the 1957-58 slump in new-car sales.

Maybe recent-model used cars have taken a beating from **price competition with the "compacts."** Be that as it may, brisk new-car sales have generated a growing supply through trade-ins.

Now the question is: With used cars bringing less, **can dealers afford to offer trade-ins that will keep the new cars selling?**

Here's one thing the finance companies should guard against:

In this 1960 auto cleanup, dealers will **sell installment credit rather than autos** if given the chance. And everyone remembers how that borrowed from the future as it built up the 1955 auto boom.

—•—

Things are bad enough in **the oil industry's private recession** to make the more philosophical (and perhaps better heeled) operators start to look for the silver lining.

The evil hasn't been too much oil taken from the ground so much as **too much run through refineries.** There's hope that this lesson has been learned, although figures don't prove it conclusively yet.

The industry unquestionably is cutting costs, hopes to emerge slimmer, sleeker, and faster of foot.

—•—

Downright depression grips the **ocean-going tanker business.**

So far has demand dropped from the post-Suez tanker building spree that Petroleum Week reports a Japanese yard selling on these terms:

Down payment 2%; 3% in one year; 7½% on keel laying; 7½% at launching; 10% on delivery; and the remaining 70% over six years.

—•—

And here's **a private recession on the way to curing itself.**

When one major independent producer **cut the price of plywood** in the bellwether quarter-inch grade to $60 list (less discounts), you literally heard mill doors slamming shut. Price slashing that closes marginal mills is the traditional shock treatment for oversupply in this industry.

That price, in fact, hones margins even of the majors paper-thin.

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unparalleled flexibility

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Unlimited custom arrangements possible . . . laminated plastic or wood tops . . . natural finished anodized aluminum legs . . . choice of decorator colors—or facades of laminated plastic or exotic woods for pedestals and cabinets. Contact your local Globe-Wernicke* dealer who will be happy to work with your decorator or architect. Or, write Dept. A-5.

*Dealers listed in Yellow Pages under "Office Equipment." • The Globe-Wernicke Co., Cincinnati 12, Ohio.

How B.F.Goodrich puts beauty and brawn in a building

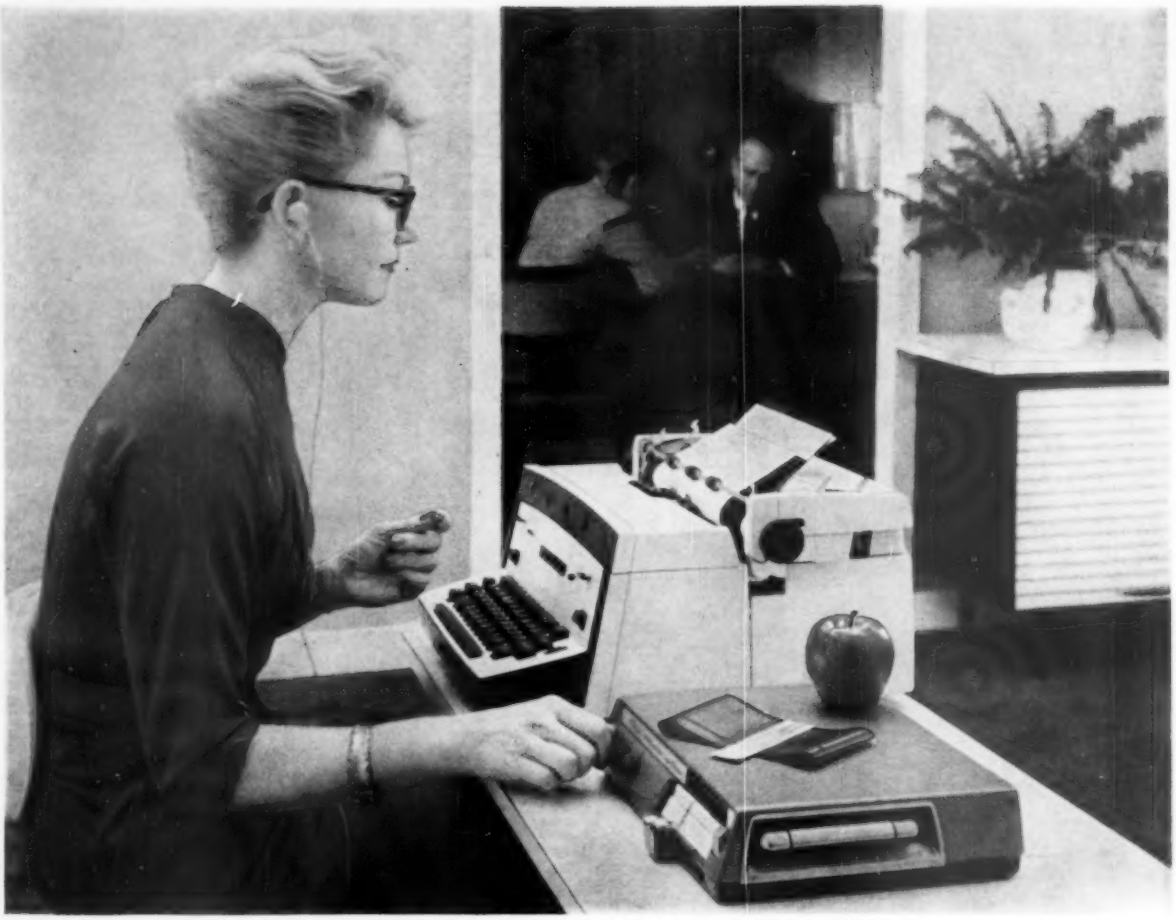
THIS IS HOW AN ARCHITECT might imagine his building as he watches it grow—in various stages of construction—some portions already bustling with business, others only bare girders and concrete. At every stage, B.F.Goodrich products help his building grow faster, make it more handsome and durable.

For example, curtain walls that clothe the building are made possible by B.F.Goodrich adhesive especially developed to "weld" exterior walls, insulation and interior walls into a single panel that is hung and bolted into place in minutes. Windows are sealed tight with BFG vinyl or rubber strips that keep weather out.

In the lobby and offices, colorful Koroseal textured wall coverings, Koroseal flooring, and steel doors coated with B.F.Goodrich vinyl, add beauty and practicality —they won't scuff or stain, can be washed clean as new with just soap and water.

Behind walls and between floors are pipes, conduit and ductwork, made of BFG vinyl, to carry wires, water and ventilation. They are lighter than metal, install easier, faster, will never corrode. Pipes for refrigeration and air conditioning are insulated with BFG cellular rubber tubing so they'll stay cold, won't sweat. Still other B.F.Goodrich products—conveyor belts, hose, tires, work shoes and boots—help construction workers do their jobs a little quicker and easier.

Over the years—in building and in many other industries—B.F.Goodrich people have come to be known as problem-solvers and product-improvers. This explains why users feel sure BFG products will live up to the claims made for them, and quite often will do *more* than is expected. For information on *any* BFG product, write President's Office, *The B.F.Goodrich Company, Akron 18, Ohio.*



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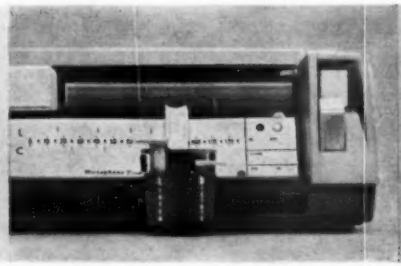

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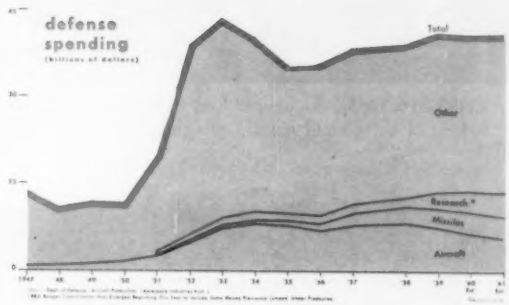
BUSINESS WEEK

MAY 28, 1960

NUMBER 1604

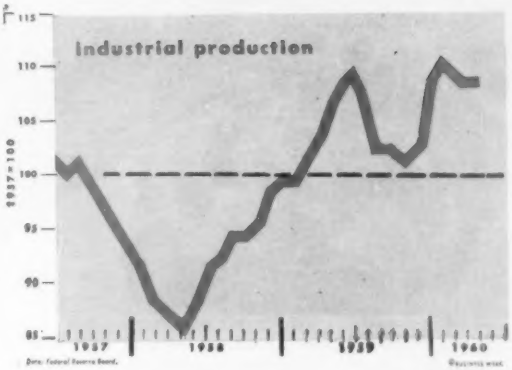
What New Power Struggle Means

1 A lot depends on the Russians. No one knows yet how far Khrushchev may have shifted from his pre-summit policy. But trouble with Red China seems likely (page 26).



2 Washington reshuffles defense dollars, and Congress will probably add a couple of billions to the Administration's budget. Meanwhile, partisan recriminations fly (page 28).

3 Businessmen are taking the summit breakdown calmly. Few see any reason to change their plans or boost inventories. Defense contractors worry less about cancellations (page 30).



4 For an economy already starting to recover from its brief droop, the international change means a further, but moderate, upward push (page 32).

KHRUSHCHEV, stopping in East Berlin, tones down his truculence a little by announcing a delay of six to eight months in signing treaty with East Germans.

EISENHOWER arrives home to face problems raised by the summit's collapse. In the main, the Administration's reaction is "policy as usual" but with shifts of emphasis.

1. Globally:

The world is still recovering this week from the shock that Nikita Khrushchev dealt in Paris to its hopes for peace. The first fear that Russia might be reverting to a truly Stalinist toughness has faded. But beyond that, Russian intentions are still a mystery. And around the world, the tremors keep coming:

In New York, at the United Nations, Soviet Foreign Minister Gromyko has been making his case against U.S. espionage flights. Though Gromyko's initial attack was relatively mild, it's clear that Moscow will push this issue to the limit and try to force the U.S. to back down much further than Pres. Eisenhower did in Paris.

In the Formosa Straits, the Chinese Communists resumed their shelling of the offshore islands. This raised fears that Moscow has unleashed Mao Tse-tung—and that he might soon be pushing his aggressive ambitions in South Asia.

In West Berlin, there was new uncertainty—but scarcely more than there has been all the time during the year and a half since Khrushchev first threatened to undermine the West there. The new questions arose from the Soviet Premier's announcement that he would not sign a peace treaty with East Germany for six or eight months.

In Washington, Pres. Eisenhower defended his handling of the U-2 affair and blamed Khrushchev for the summit failure. However, he used the kind of moderate language that suggested there would be no basic change in U.S. foreign policy. At home, though, the summit had become a campaign issue even before Eisenhower spoke on Wednesday, and Senate hearings had been scheduled to start later this week.

• **Lingering Question**—In every capital of the free world, meanwhile, diplomats and experts on the Soviet Union are continuing something they started the day Khrushchev torpedoed the summit—a reappraisal of Soviet policy. The key question still is this: What will Soviet policy be now? At midweek, the answers were generally more tentative than they had been a week earlier, right after Khrushchev's performance in Paris.

At that time, it was widely assumed in the West that Soviet policy had veered sharply and almost completely away from the peaceful coexistence line so assiduously cultivated by Khrushchev. As a result, it appeared, the pre-summit hopes for some accommodation between the U.S. and the U.S.S.R. had evaporated.

Today, few Western officials see things in such stark terms. No one

All Eyes Are Watching the Russians

doubts that there has been a change in Soviet policy and in the world situation. But Soviet policy shows too many conflicting tendencies today for anyone to feel sure just how Moscow will behave. Correspondingly, until this policy becomes more apparent, it's impossible to predict how far U.S. and allied policies will shift.

I. Allied Opinions

France and Britain feel that the Soviet policy line won't be clear for some months. In the meantime, they expect a complex pattern with many contradictions—for example, a hard line on the U-2 issue and a moderate one on Berlin.

The official French view is based partly on the assumption that Khrushchev's personal authority has been badly shaken in a new Kremlin struggle for power. In this interpretation, the Premier is now more a spokesman than a leader with authority to negotiate on his own. The French think it may be six months before anyone knows whether Khrushchev is really calling the shots. Meanwhile, in the French opinion, Soviet policy will reflect the thinking of the main forces in the current power struggle—the military and the zealous party men, among others.

The British agree in thinking that Khrushchev has lost power and prestige. But they attribute this largely to the U-2 incident and the way it disproved his boasts that Soviet military power equaled or surpassed the West's. This meant a real loss of face for a man on whom the Russians were depending to make their country the strongest in the world. As the British see it, this provoked the dramatic attack on Eisenhower in Paris, but it doesn't necessarily mean he has reversed his basic policy.

II. The U.S. Slant

In Washington, there is no consensus yet how far and fast the Soviets may be veering back toward cold war tactics. But U.S. officials seem to agree on three possibilities:

View No. 1. The first—and most unlikely—is that Khrushchev's foreign and domestic policies really haven't changed much and that no permanent damage has been done to his position as leader. On this assumption, Khrushchev won't push things to a crisis with the West. He will continue to advocate coexistence and leave himself free to exploit issues such as the U-2 to the utmost.

Some U.S. officials find evidence to support this appraisal in Moscow's apparent desire to maintain cultural exchanges. Last week, the U.S. took a sounding on exchange programs, and Soviet officials replied that they saw no reason to downgrade or alter the present setup.

However, Washington seems to be taking the other two possibilities more seriously.

View No. 2—The second interpretation is that Khrushchev's policy has hardened significantly—either by his own choice or under pressure from neo-Stalinists in the Soviet Communist Party, the Red Army, and Peking. It won't be clear until after the next meeting of the party's Central Committee just how tough Moscow will be, or how much Khrushchev has been hurt politically. But the Soviets will renew the cold war with a vengeance and provoke crises in Berlin, the Far East, or elsewhere.

View No. 3—The third possibility is that Khrushchev will try to keep an atmosphere of coexistence alive but that without top-level communications between Moscow and Washington, a chain reaction of events might revive the worst tensions of the cold war. Opponents of coexistence will now wield more influence on both sides of the Iron Curtain, and they might be able to foster such a chain reaction. In any case, in the absence of regular top-level contracts an accumulation of misunderstandings could increase hostility.

III. Mysterious China

The most dangerous single factor in the present situation, U.S. officials believe, is Red China. Its reaction is still uncertain.

Khrushchev has probably been restraining Mao from military adventures in Asia in order not to upset the summit negotiations. Even though the summit has collapsed and Khrushchev's policy has toughened, he is likely to keep on trying to check the Chinese, because they are now saying "I told you so." Right along, they opposed Khrushchev's coexistence policy and his talks with the West. If they heated up a crisis in the Far East now, it would look as if Mao Tse-tung were calling the tune, and this would be hard for the power-conscious Soviet leaders—even Khrushchev's opponents—to take.

At the same time, the failure of Khrushchev's summit policy undoubtedly has weakened his ability to curb the Chinese. He no longer has any handy argument against new Chinese adventures. After all, he himself has conceded that negotiations with the Western leaders are out for the time being. And he has voiced disillusionment with Eisenhower's peaceful intentions.

IV. Washington's Program

While U.S. officials watch for more evidence of Moscow's course, the Administration will do nothing that would be likely to push the Soviets to a tougher line.

Unless the Russians warm up the cold war further, Eisenhower will stick to the basic defense and foreign policies of the past year. He will oppose any dramatic increases in defense spending on the grounds that current programs are adequate for the long pull—and should not shift with every chill or thaw in East-West relations.

• **No Drastic Change**—The U.S. will continue to negotiate for general disarmament and for a ban on military nuclear tests. It won't resume its own testing unless the negotiations for a ban fail or the Soviets start testing again. It will still encourage East-West cultural contacts, and there won't be any drastic stiffening of East-West trade policy. On propaganda, Washington will parry Soviet thrusts but not take the offensive itself.

The Administration will fight harder than ever on Capitol Hill for its aid program and liberal trade policy. But it won't seek increases in foreign aid or greater power on trade policy.

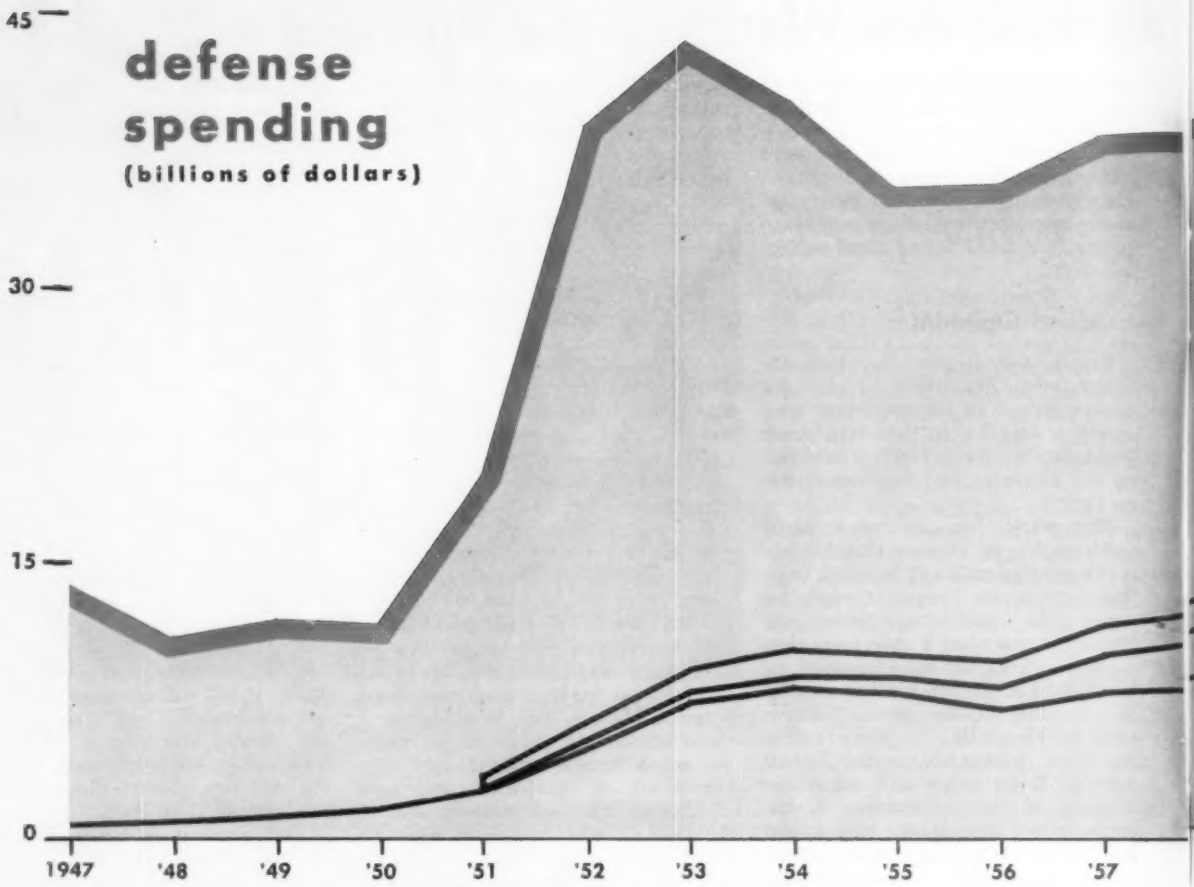
• **Shifting Stresses**—Despite this "policy as usual" approach, some shifts in emphasis seem inevitable on U.S. policies and foreign relations—even if the most optimistic assumptions about Soviet intentions prove true.

Defense spending is an obvious case in point. There will be effective political pressures for bigger appropriations regardless of the Administration. And the summit fiasco almost certainly will help the $4-billion foreign aid bill, particularly the $2-billion of it earmarked for military assistance.

• **'Everyone Has Lost'**—This week, Washington is glum more from uncertainty than from fear of an immediate crisis. The real danger may be that events will get out of hand and lead to trouble that neither side wants.

One official expressed the prevailing mood this way:

"Everyone has lost from the collapse of the summit talks. The arms race is running without brakes again. When you're dealing with an authoritarian power, you have to be able to talk to the top man occasionally. Now that's out for some time. And, anyway, if Eisenhower and Khrushchev couldn't pull off the miracle we need, who can?"



Data: — Dept. of Defense, Aircraft Production (Aerospace Industries Assn.)
*R&D Budget Classification Was Enlarged Beginning This Year to Include Some Money Previously Lumped Under Production

2. In Washington: Defense Shifts,

The slow and quarrelsome task of readjusting U.S. policy to the summit collapse is under way in Washington.

There will be no sudden and dramatic decisions. On the surface, the situation may seem like a continuation of familiar debates over military spending, and not like a readjustment at all.

There is no feeling that the nation confronts a crisis—that when Khrushchev wrecked the summit he set in motion forces that could lead swiftly to war. On the contrary, the Senate's first day of debate this week ended in a bitter partisan wrangle, with more attention paid to the Presidential campaign than to a reappraisal of our position in the world.

Yet, important changes are certain to stem from the self-examination and self-criticism both in Congress and the Administration.

• Arms procurement programs and spending levels (chart) will eventually be affected, some rising and some falling. The general direction will be upward, perhaps by only a small amount at first. What will be more important than the net amount of the rise is the pinpointing of increases—which weapon systems come out with the most added dollars.

• The decision-making process in the field of national security may be revamped to curb the independence of the Central Intelligence Agency.

• The Presidential campaign is being readjusted to new and perhaps decisive factors (page 45).

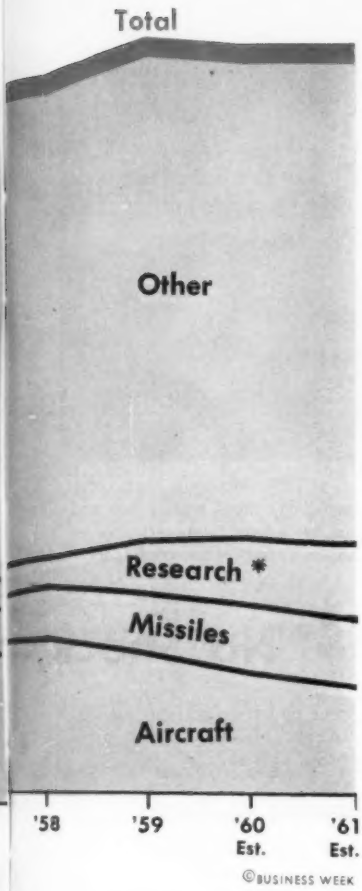
The original Republican "peace" issue, which party strategists had counted on heavily, is dissolving. Taking its place is the issue of how to handle Khrushchev and the Soviets.

• **Candidates' Stakes**—Vice-Pres. Richard M. Nixon, as sole contender for the GOP nomination, has the most at stake. He moved swiftly to support the Administration in the early days of the U-2 incident, and will have to stand by whatever Eisenhower does in the coming struggles with Congress.

His political fortune may well depend on whether the voters decide the Administration blundered seriously and lost a real chance to advance the cause of peace—or whether voters accept the Administration version, that Khrushchev was going to wreck the summit on one pretext or another, and that the downing of our U-2 spy plane was merely the pretext that came to hand.

The Democratic aspirants are having their troubles, too. When they criticise Eisenhower's conduct before and at the summit they are met by cries of "appeasement" and "soft on Communism" from the Republicans. Their safest course so far is to come out for higher defense spending—and to a man, they are doing this.

• **Infighting**—It will be weeks before the political implications are fully felt—but the infighting has already begun.



Party Wrangling

Democrats in Congress this week mounted a full-scale inquiry into the summit collapse, the U-2 spy flight that preceded it, and the series of contradictory initial statements by the Administration. There's no chance at all of keeping politics out of these inquiries.

Sen. J. William Fulbright (D-Ark.), chairman of the Foreign Relations Committee, will head this investigation. He will call Secy. of State Christian Herter, and Allen W. Dulles, head of the CIA, will be asked to explain why a U-2 flight was ordered over Russia on the eve of the summit.

It is possible that Fulbright will ask White House Press Secy. James C. Hagerty to testify on the handling of U-2 policy statements. Democrats are particularly critical of the way Eisenhower and Herter first gave the impression that U-2 flights would be continued over Russia, only to have Eisenhower say in Paris, after the first bitter attack by Khrushchev, that the flights had been suspended.

• **Rival Policy Probes**—Before the summit meeting, Sen. Henry M. Jackson (D-Wash.), chairman of the Subcommittee on National Policy Machinery, had scheduled a leisurely study of policy coordination centering in the National Security Council. It will be pushed now with added vigor.

The Administration is making its own study of policy coordination. Like Jackson's, it was begun before the U-2 incident, but will be influenced by it. Herter and Defense Secy. Thomas S. Gates—comparative newcomers to their present posts—are believed to have inspired the study, with the CIA's semi-independent role partly in mind.

• **Challenge**—Democrats in the Senate are laying down a major challenge to Eisenhower on spending levels.

Sen. John Kennedy (D-Mass.), front-runner for the Democratic nomination for President, was one of the first to link the Eisenhower budget to the summit collapse. Kennedy argued that Khrushchev would never have heaped insults and personal abuse on Eisenhower at Paris if he had not been convinced of Soviet military superiority.

Sen. Stuart Symington (D-Mo.), another Democratic contender for the nomination, presented a $3.5-billion package of defense increases to the Senate this week. He said the Administration had invited Khrushchev's belligerence at the summit by "placing expenditure ceilings above military strength."

All of this might have remained largely a political gambit except for the powerful support of Sen. Richard B. Russell (D-Ga.), chairman of the Armed Services Committee. Russell in effect agrees with Kennedy and Symington. He will push for higher spending.

• **Administration Stand**—Secy. Gates is setting the tone for the Administration. On his return from Paris, Gates said it was natural that greater concern would be expressed about U.S. defenses, but that there would be no immediate changes. The budget for the next fiscal year was not prepared in the belief that any lessening of tensions would come out of the summit, so no changes are called for, he added.

The Administration still hopes to hold military outlays in fiscal 1961 at the $41-billion level, where they have been the past two years.

Almost by rote, Administration officials explain that U.S. military strength must be maintained for the long pull, that spending cannot be stepped up for every possible crisis nor tapered off for periods of relaxed world tensions.

The capital's mood is somewhat the same as after Sputnik I in 1957. Only after prolonged reappraisal and furious demands from Congress for increases, did the Administration move then. It finally began approving higher outlays, and defense spending rose from a 1957-58 target of $38-billion to the present $41-billion (chart).

• **Senate's Move**—In about three weeks, the Senate Appropriations Committee will approve a defense bill. It could be some $2-billion higher than the bill already adopted by the House, which was only $122-million higher than the sum asked by the Administration.

The House—in its pre-summit voting—did some increasing. Extra funds amounting to $1.5-billion were voted for certain programs—military satellites, anti-submarine warfare, the Polaris missile-submarine, the Air Force's Minuteman ICBM, an airborne bomber alert, procurement of fighter-interceptor planes, airlift, and modernization of Army combat equipment.

These increases were offset, however, by reductions totaling $1.4-billion. An aircraft carrier for the navy was knocked out, the Air Force's Bomarc-B anti-aircraft missile was virtually killed, and a general, across-the-board cut of $440.5-million was ordered for all military procurement.

As the outlook shapes up now, the Senate will approve just about all the House increases, and may vote back the Bomarc-B, aircraft carrier, and procurement funds. In addition, Democrats will seek increases for weapons that the U-2 incident and the collapse of the summit make particularly appealing.

• **Boost for B-70**—Disclosure that the U.S. has successfully been sending high-flying U-2s over Russia for four years, for example, gives new life to the B-70 bomber project. The B-70, now in final design, would deliver hydrogen bombs and fly at altitudes up to 80,000 ft.—less than the U-2's 90,000-ft. capability, but apparently well out of range of present Soviet air defenses. The Soviets inflicted no damage on the downed U-2 until it had dropped to around 37,000 ft. apparently because of engine trouble.

Gen. Thomas D. White, Air Force Chief of Staff, told Congress a few days after the summit failure that he favored $360-million for the B-70, to build 12 test models, in contrast to the $75-million being asked by the Administration for work on one or two test models. Symington and other Democrats support him.

White also urged Congress to increase the Atlas program by two squadrons of 12 missiles each, at an operational cost of $350-million higher than the Administration's program. He put in a plug for the Bomarc-B, pointing out that it could make kills at the 90,000 ft. level.

• **And for Satellites**—The devices that are coming out of the U-2 affair with the greatest added glamor are the military satellites—the Samos for recon-

naissance, the Midas for early warning of ballistic missile attack, and the Discoverer, an experimental satellite for testing the apparatus that will go into the Samos and the Midas. The U.S. launched its first Midas this week, but only on an experimental basis to test its detection equipment, not on a path that would take it over Russia.

Senate Majority Leader Lyndon B. Johnson, an aspirant for the Democratic nomination, has kept himself somewhat aloof from the general Democratic clamor for more spending, but he is in favor of putting the Samos on a crash basis.

A successful reconnaissance satellite would perform the same function as the U-2, but because it is not a manned airplane, it would probably not carry the same connotations of "invasion" that the Soviets pin on the U-2 flights. Indeed, a satellite might lead quickly to some form of internationalized reconnaissance—in effect, the "open skies" policy long advocated by Eisenhower.

• **High Quarter**—The over-all volume of defense contract awards was already headed up, even before the debate started on the summit failure.

Pentagon fiscal officials stress there's no summit significance. The fourth quarter of any Pentagon fiscal year normally shows a high rate in contract awards. This year, the rate will run higher than usual because of economy measures last fall that delayed awards.

During the April-June, 1960, quarter, the Pentagon plans to let an average $1.9-billion worth of procurement contracts each month (compared with $1.5-billion in March and a previous high of $1.3-billion, for September, 1959). There will be an average $463-million for research, development, test, and evaluation (up from $359-million in March, and roughly the same as the previous high in October, 1959); and $230-million for construction contracts (compared with $123.6-million in March, and a previous high of $140-million in February).

• **No Basic Change**—In all this there is no sign that either the Democrats or the Administration are going to revise basic strategic concepts, or radically change arms procurement.

The one hard military fact to come out of the U-2 incident and the summit failure was public knowledge that we have been flying reconnaissance planes over Russia for four years—and this merely revealed to everyone what our military people have known for some time, that the vaunted Soviet air defense system was fatally weak at high altitudes.

The summit failure, however, has started a new look at the details of arms procurement. Here, the net effect will be an increase in spending for space age weapons.

JOSEPH L. BLOCK, Inland Steel Co. chairman, Chicago: "People don't scare easy these days. We seem to be living in an age of crises. . . . All we can do is wait."

ROBERT GALVIN, Motorola, Inc., president, Chicago: "We lived with a hot and cold situation for a long time—and plan no policy changes as a result of one conference."

3. In Business: No Shock,

All the bluster vented by Soviet Premier Khrushchev at the short-lived Paris summit meeting did little to shake the course of business as usual back home in the U.S.

Such a conclusion is clear from a round of interviews by BUSINESS WEEK reporters this week with executives across the nation (pictures). But it should be tempered by another finding: that "business as usual" no longer means just humming along in self-satisfied calm, more or less oblivious of the world outside. More and more since World War II, business has had to learn to cope, "as usual," with recurrent international crisis as a fact of life.

At the moment, business as usual also involves irritating hints of slack in the economy—excess capacity in some sectors, persistent pockets of unemployment, inventory cuts—and matters such as these seem to interest a good many company officials more than the collapse of the summit talks. The impending Presidential election is also a livelier topic.

Most businessmen expect the Paris fiasco to add somewhat more emphasis to defense programs (page 28)—but not enough to bring on a runaway boom, or to solve all their current problems. Probably most significant of all, virtually no one has yet seen the need to change existing plans or lay new ones because of the way the Big Four gathering turned out. Businessmen remain generally optimistic about their prospects for 1960 and 1961—not so ebulliently as some had been earlier, but the letdown can't be blamed on the summit: It occurred well ahead.

I. Accustomed to Crisis

Familiarity with world crisis has apparently bred, if not contempt, at least a certain detachment in the business community. Perhaps the most extreme example was cited by a Chrysler Corp. vice-president in charge of international operations, Lynn A. Townsend, who was in Paris during the conference. His Parisian business and banking contacts deplored what they considered Khrushchev's boorish behavior—but didn't look on the situation as a crisis at all. Back in Detroit this week, he attended a gala opening performance of the Metropolitan Opera with a number of business and civic leaders—and nobody even mentioned the summit, though he was fresh from the scene.

A possible explanation for this attitude comes from Chmn. Joseph L. Block of Inland Steel Co. (picture above). A fellow Chicagoan, Pres. Edwin A. Locke, Jr., of Union Tank Car Co., adds that "a number of businessmen are getting more sophisticated about foreign affairs."

• **Not Another Korea**—A Milwaukee manufacturer has already put the summit into historical perspective. "It won't blow the place up like Korea did," he observed. "We're acting as if the summit never happened."

At the same time, Khrushchev's histrionics brought home to some the

ROBERT S. BELL, Packard-Bell Electronics, Los Angeles: "The summit merely brought into the open what has been going on all along. There's no real change."

ROBERT W. KERR, Fairbanks, Morse & Co., Chicago: "Some of our men called to find out if they ought to change planning. We told them it was too soon to tell."

IVAN ALLEN, Ivan Allen & Co., Atlanta: "We are reappraising our inventory in terms of preparing for additional defense business." He is one of few taking positive steps.

Few Changes

possibility that, as a Baltimore drill maker put it, "some maniac can push the panic button" and cause hot war. But the majority dismissed the Paris outbursts as mainly propaganda that, in one sense, had a healthy effect—stripping away illusions about the Soviets.

II. Impact on Inventories

In the light of this philosophic calm, it's hardly surprising that no one is rushing to stockpile raw materials and fatten product inventories. "There is no reason for a buildup in inventories of raw materials," said an official of a chemical company. In any case, a Philadelphia industrialist commented, these days "technology changes so quickly that stockpiles become useless."

The complacency about inventories stems chiefly, as a Pittsburgh machinery maker pointed out, from the cushion of extra capacity available in almost every industry. He suggested that heavy capital spending would continue—but to cut costs, not to add capacity. The president of a major lumber company foresaw overcapacity in his industry for two years or so. "Businessmen feel there is plenty of capacity for anything that comes," said William Day, president of Michigan Bell Telephone Co.

• **Less Cutting**—If the summit had an impact on inventories, a Milwaukee manufacturer thought it could be by reducing the rate at which companies are trimming their stocks. His feeling was that if defense spending possibly revived inflationary pressures, it would then be wise to have stocks on hand.

The vice-president of a Birmingham (Ala.) coal company expected more impact on inventories—but his was a fairly lonely voice. He predicted an end to the "close-to-the-vest buying that has been the pattern."

III. A Bit More for Defense

Whatever the effect of Paris on inventories, business right now isn't figuring on any all-out drive to spend more for defense.

Gen. Donald L. Putt, president of United Technology Corp., has a typical opinion. It has been hard to make a case for upping defense expenditures, he said; now it will be hard to make a case for reducing them.

General Electric Co. had already anticipated an upsurge in its defense orders this year as it recovered from the aircraft-to-missile shift. So far the only sign of a post-summit change has been the possibility of a speedup in the target date for completion of the Ballistic Missile Early Warning System.

• **Expectant in L.A.**—In the Los Angeles area, a hub of defense work, there was considerable bullishness—at least to the extent of expecting no further cuts in spending. William E. Zisch, vice-president and general manager of Aerojet-General Corp., was looking for "acceleration of all efforts associated with space and long-range missiles."

An electronics man farther north on the West Coast anticipated that the Defense Dept. would soon "start to modernize existing equipment as much as possible to make it fully operational until new weapons, such as the Atlas, can take over." A defense contractor in Seattle thought there would be more emphasis on weapons for fighting limited wars. There were some expressions of fear of that old bogey, inflation. But almost no one was prophesying a dramatic loosening of Pentagon purses. Even if there were such a loosening, a Pittsburgh executive said, the effects would be much narrower than before, because the money would be buying brains in the form of rockets, not brawn in the form of tanks.

IV. The Balanced View

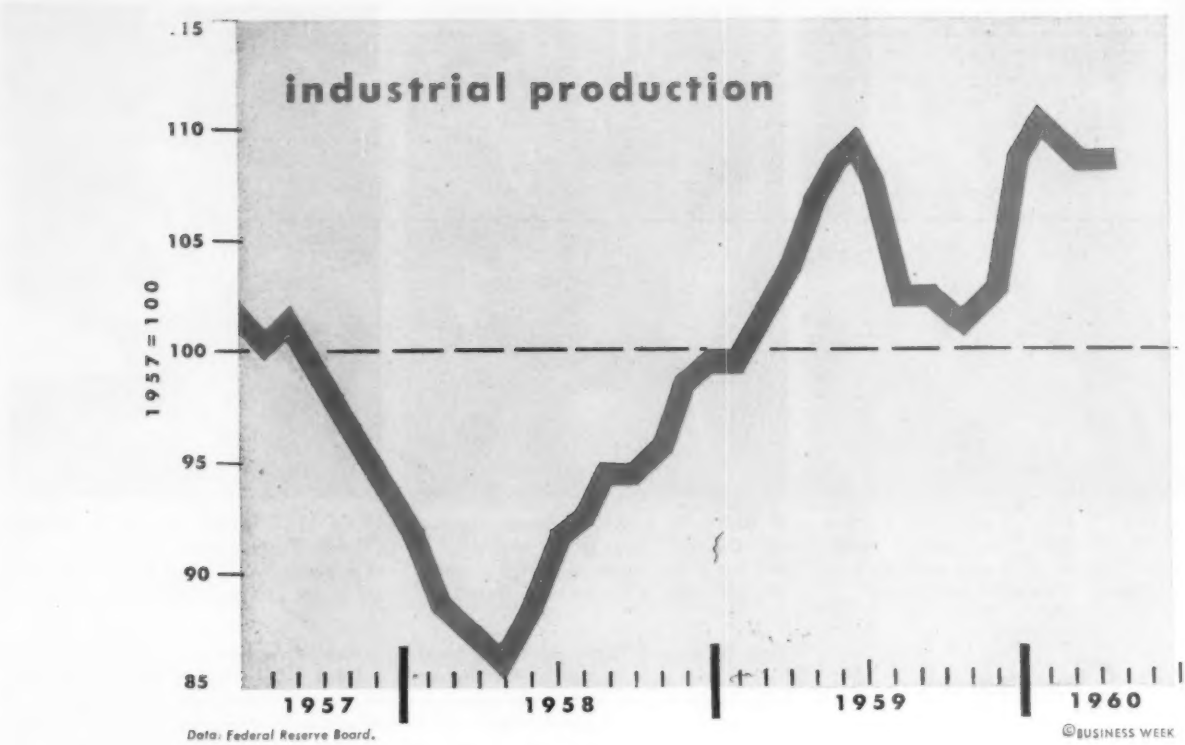
Since business lays long-range plans, it's naturally difficult to change in a hurry—and it has been hardly more than a week since the summit folded. Even so, businessmen over-all seem remarkably little affected.

The steel industry, for instance, has been hoping for some weeks now that June orders will snap back and rescue its sagging operating rate. But no such revival has occurred, despite Paris—and it's almost too late.

• **Caution Downtown**—The most sensitive barometers of all—on Wall Street—haven't shown much reaction either. One New York banker thought inventories would improve, but he admitted there has been no increase in loan demand to suggest that he's right.

The stock market bid many defense issues up at first, but some have already lost part of their gains. The most one broker would venture was that the world situation ruled out a new market low—but he wouldn't predict a new high.

In short, most Wall Streeters seem to feel that the most the Big Four fiasco did was put a floor under the economy.



4. The Economy: A Gentle Shove

From the hard facts of the summit collapse, from the political maneuvers and counter-maneuvers, both international and domestic, that have followed it, and from its effects on U.S. defense needs and on business opinion, what firm conclusions can one draw about its impact on the U.S. economy?

The first question to answer is this: What was the course of the economy at the point when Khrushchev torpedoed the Paris conference? As the chart above shows, the economy was in the midst of a minor inventory readjustment—a quasi-recession, if you will (BW—Apr.30'60,p25).

• **First-Quarter Story**—In January, when inventories were being built up at the fantastic annual rate of about $12-billion, the industrial production index had hit an all-time peak of 111 (1947=100).

In February and March—as that rate of inventory building proved to be too rapid in relation to the pace of sales, to the adequacy of supplies and productive capacity, and the cost of money—inventory building began to come down. And industrial production dipped by about 2%.

But fears of a continuing, cumulative decline were dispelled in April. That month, consumers demonstrated that much of their sluggish performance had indeed been due to the exceptionally poor weather of the late winter and early spring. Business announced that it had boosted capital spending plans for 1960 to nearly $38-billion, or 16% higher than 1959's total outlays for new plant and equipment (BW—Apr.30'60,p27)—showing that it simply didn't believe that a genuine recession was already in progress.

• **Lack of Zip**—At the same time, more people began to realize that the economy lacked much real zip. The sources of its ailment were difficult to analyze. Some were short-run business cycle developments, particularly the over-estimation of sales and inventory needs in the wake of the steel strike.

Others were the result of policy moves in Washington. Most important among these was the Federal Reserve's highly restrictive monetary policies which, in anticipation of inflationary strains, had helped to send interest rates to a 30-year high. There was also the Administration's determination to produce a substantial budget surplus in the new fiscal year.

• **Brought Up Short**—But, more fundamentally, it became clear as 1960 wore along that some long-term trends suddenly were not long-term anymore, but painfully immediate:

• Stronger international competition from the rebuilt and modernized industries of other nations frightened many U.S. producers about their cost and price structures and their hold on their markets in the U.S. and abroad.

• This tougher competition—together with the general superabundance of goods and of capacity—spelled the end of the postwar period of worldwide inflation.

• And it intensified the need for modernizing plant and equipment. Seen the other way round, this meant the need to get rid of workers with relatively low skills. With the economy at the fabulous and long-awaited half-trillion mark in the first quarter of 1960, unemployment was still at about 5% of the labor force.

• **Era's End**—What these changes added up to was the end of the postwar era, the era of easy-going boom, in which inflation for any one nation was a fairly unimportant problem—since its competitors were suffering from the same ailment. And, at least to sophisticated observers, the new era of intense competition, balance of payments strain, and the struggle for gold reserves (BW—Jan.30'60,p116) meant that you could not so readily expect to get out of a recession by swift and extreme swings in monetary policy.

To some observers—and investors—all

this had an ominous tone, reminiscent of the period that followed that earlier postwar boom in the 1920s. But they were still in a small minority. Most businessmen simply felt that they were moving into a period when there would be less pressure on the labor supply, on financial resources, on plant and equipment, on raw materials—but still a period when population growth, new and expanding industries resulting from scientific and technological discoveries, and economic competition with the Communists would make for growth.

• **First Summit Impact**—Did the collapse of the summit conference change all that? Business' immediate reaction has been that it was hardly changed at all (page 30).

Short-term, inventories still hang rather heavily over the economy. After a buildup at the turn of the year, some industries want to reduce those inventories; many seem to have stopped adding to them. The steel industry has cut output to the lowest point of the year—less than 70% of capacity. Market experts expect steel output to slip further in June, sag still lower in July. There are simply no signs yet of a real pickup in steel orders.

Throughout the economy, with the exception of some defense contractors who sense (or wishfully think they sense) a change, businessmen insist that they can feel no palpable difference in the tone of business since Paris. The stock market, to be sure, has made a cautious march upward; but, again, this action didn't spread far outside the limits of stocks of defense industries.

An overwhelming number of businessmen are saying that "nothing is changed, because I wasn't expecting anything out of the summit in the first place."

• **Longer Range**—But if you look beyond the weeks immediately ahead, this reaction seems to be too calm. Though no one can be sure how long it will take, it does appear that the events in Paris will have an effect on the economy.

The initial effect on defense expenditures will be moderate (page 28).

Although it will be impossible for some time to say what would have happened without the summit failure and how much can be directly attributed to it, some step-up in defense spending—amounting at most to some $2-billion in fiscal 1961—now seems to be in the cards. This seems likely despite the Administration's immediate position that the $41-billion defense ceiling will hold. This rise will give a moderate push to spending by defense contractors—and by defense workers—but it will not be enough—in a half-trillion dollar economy—to mean a shove into a boom.

• **"Do" Instead of "Don't"**—But the summit failure will have effects on the economy that won't stop with the direct effect on defense expenditures. Probably it will mean something like this: more caution in business planning for a time of greater tension—and caution, in that framework, will mean holding onto inventories, rather than cutting to the bare bone. Caution will also mean that, if you have plans for buying new plant and equipment, you might as well get on with it, while the getting is good.

So business decisions will be tipped on the side of "do" rather than "don't."

• **Moderate Lift**—The shifts in government and business spending decisions will be relatively moderate, but they will have some marginal importance. If the economy were headed into a genuine recession right now—which it is not—their effect would not be enough to stop that trend.

But for an economy that is starting to move gradually upward, as ours seems to be, the shifts will mean a moderate acceleration, will remove some of the uncertainties about 1960, lessen the chance of a turn to recession in 1961.

Political events could, of course, force far more drastic changes. If Khrushchev changes his mind on Berlin—and we face the job of reconstructing the airlift or responding in some other way; if Mao Tse-tung decides this is a fine time to move against the offshore islands or into Southeast Asia; or if there is some other direct move by the Communist bloc—then all bets are off.

But if—as now seems most probable—we are in for a period of watchful hating, then the U.S. defense response, and the spur to the economy, can hardly be more than gradual.

If this is the case, then the economic consequence of Paris will be a moderate and somewhat delayed lift to a slowly climbing economy.

Closer to Satellite Patrol of Globe

Midas, in orbit from Cape Canaveral, gets chance to show it can detect and report missile firings on earth.

This week's successful orbiting of a 5,000-lb. test model of a Midas satellite gave evidence that the U.S. is close to having the hardware for long-range warning and surveillance without need for the kind of U-2 manned reconnaissance that led to an international crisis.

In February, 1959, the Army's then chief of staff, Gen. Maxwell D. Taylor, said flatly that it was technically possible to develop a system to protect the U.S. from missile attack "within a reasonable time and at an acceptable cost" (BW—Mar.7'59,p36).

Midas is part of such a system. It carries infrared equipment to sense and report flashes from missile exhausts. Samos, another unit in the system, will carry TV mapping cameras.

• **After One Failure**—This week's firing from Cape Canaveral, Fla., was a second try at testing the Midas package. On Feb. 26, a trial failed when the first stage, a modified Atlas ICBM, didn't disconnect properly from the second stage, the Agena.

The elements had been tested separately. Agena has served as part of the Thor-Agena system to put Discoverer satellites into orbit. Atlas has been thoroughly proven as a booster. And the infrared-sensing cameras for Midas had been tested on the ground and in planes (BW—Apr.2'60,p126).

• **Still Testing**—Though this week's test of the Midas package was a success, tests will go on. Operational Midas satellites are due to be fired within the next year or 18 months; they will weigh only 3,000 lb., compared with this one's 5,000 lb., in return for more precision in keeping to a north-south polar orbit.

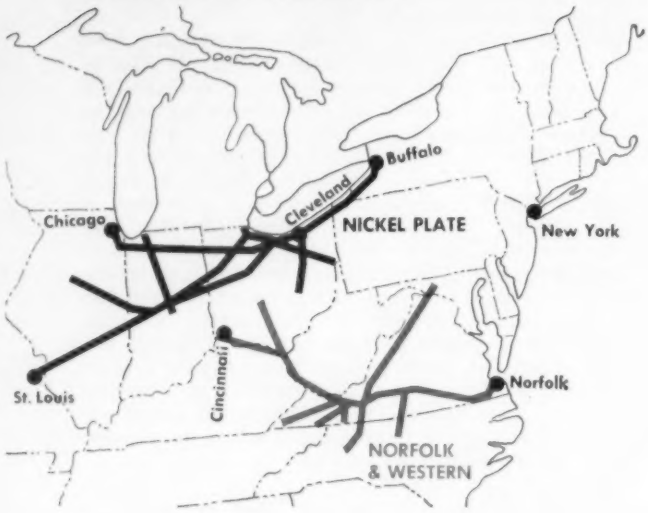
This week's Cape Canaveral shot won't pass over Russia, will be able to scan only a wide belt of the earth around the equator. The polar orbit will give Midas a chance to scan all land areas as the earth turns beneath it.

The Air Force won't say how many test firings are scheduled before Midas becomes operational. At midweek, another Atlas-Agena was on the launching pads at Canaveral. Launching crews expect at least another shot or two from there before the first polar orbit tests are run from Point Arguello, Calif. For one thing, it will take several more launchings down the Canaveral-Atlantic Ocean test range to satisfy everyone that the Atlas-Agena system is reliable enough to be fired over a populated land area, as it must be from California.

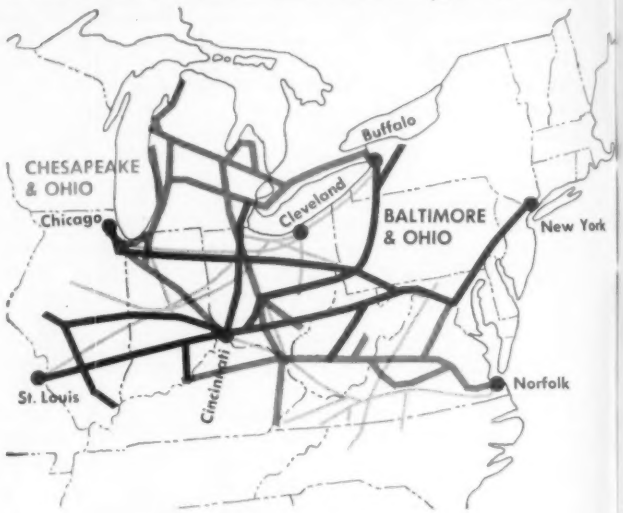
It should be possible in the next few days to determine whether the infrared detectors on Midas are capable of picking out missile firing flashes and distinguishing them from sodium flares and such heat sources as open hearth steel furnaces.

• **Next, Samos**—It still may be late 1961 or early 1962 before the U.S. can put up the six Midas satellites needed to keep the entire earth under constant observation. The test encourages faster work on Samos, sister to Midas. Some of the TV equipment for Samos to monitor military activity visually has been tested on a Tiros weather satellite, and the same Atlas-Agena rocket system will be used to put it into orbit.

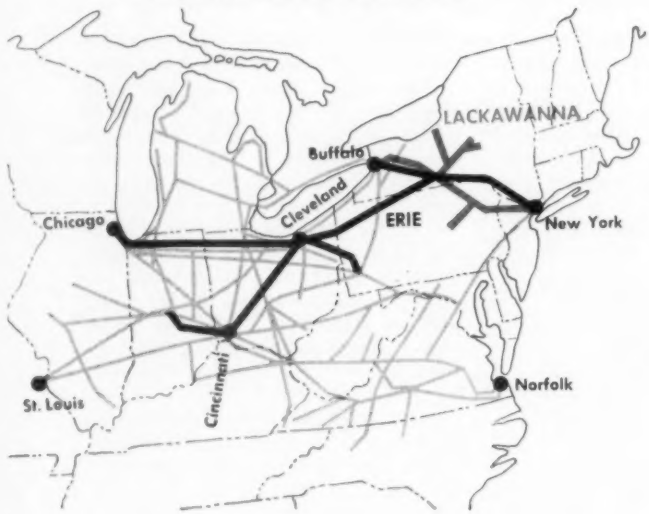
The proposed merger of NICKEL PLATE and NORFOLK & WESTERN . . .



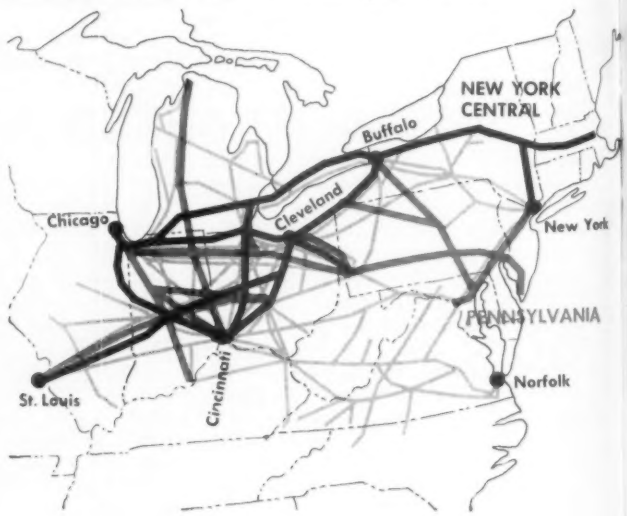
. . . Has started BALTIMORE & OHIO and CHESAPEAKE & OHIO down the merger route . . .



ERIE and LACKAWANNA already have a merger proposal before ICC . . .



. . . And so NEW YORK CENTRAL and PENNSYLVANIA are confronted with a hot competitive threat.



Rails Make Up Time in Mergers

For 40 years, railroads have agreed that mergers were a must, yet they have done substantially nothing about it. Now they're making up for lost time (map).

Last week was the climactic one so far. Directors of the Baltimore & Ohio accepted a bid by the Chesapeake & Ohio to exchange stock, with a view toward eventually combining the two roads as the country's second largest system. And directors of the Seaboard Air Line RR and the Atlantic Coast Line RR approved merger into another huge road with the curiously redundant name of Seaboard Coast Line RR.

• **Awaiting Approval**—In each case, stockholders and the Interstate Commerce Commission have yet to approve.

The C&O plans to petition ICC in the immediate future, then call a special stockholders' meeting. If all goes according to plan and enough B&O holders deposit their stock for exchange, the C&O will seek four places on the B&O board and will grant four seats on its own board of directors to the B&O.

Voting by directors in the Coast Line-Seaboard merger came after engineering studies had shown that a consolidation would produce pre-tax savings of $38.7-million a year within five years after merger. The two roads generally parallel each other from Richmond, Va., to Florida. They have been bitter competitors for Florida-New York trade.

Also last week, stockholders of the Minneapolis, St. Paul & Sault Ste. Marie (Soo Line), the Wisconsin Cen-

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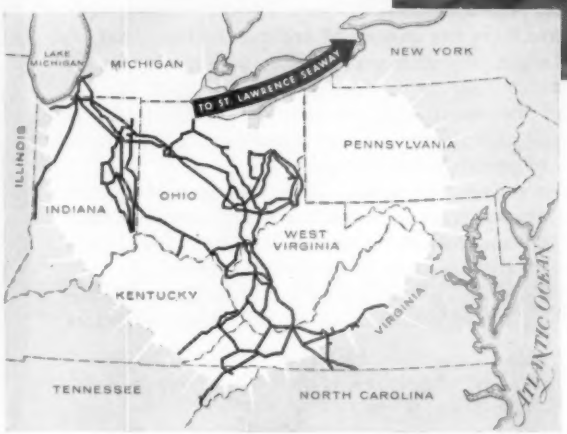

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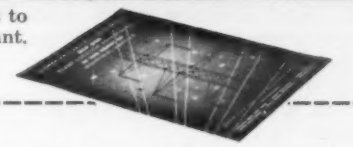

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tral, and the Duluth, South Shore & Atlantic voted overwhelmingly to merge. All are affiliates of the giant Canadian Pacific.

• **Strong Get Stronger**—Most of today's mergers are not at all the ones contemplated since the early 1920s by the industry, ICC, and Wall Street. That "master plan" had called for strong roads to acquire weak ones, theoretically creating a symmetry of balanced systems.

However, in a free economy, the weak tend to ask too much, the strong to offer too little, with the result that mergers rarely happen in the railroad business. Today, the strong are seeking to grow stronger by merging among themselves, thus applying tremendous competitive pressure on everyone else.

Certainly this is true of the C&O-B&O and ACL-SAL mergers. It is even more true of the merger proposal still being negotiated between the Norfolk & Western and the New York, Chicago & St. Louis (Nickel Plate).

Whether or not ICC will allow these mergers, and others that may come before it, remains to be seen. But there are signs that ICC no longer insists on its 40-year-old schemes. If it does approve the new mergers, the inevitable chain reaction should be spectacular. Weak railroads that can't find merger partners might well be doomed. A few balanced systems would emerge after all, but not in the gentlemanly way originally planned.

• **N&W-Virginian**—A good example is the Norfolk & Western, conceded to be one of the most fortunately situated and well-managed railroads in the country. Historically, it has been a major carrier of metallurgical coal to Midwestern steel mills; any steam coal it carried to power stations in the East had to be manhandled up steep grades.

Last year it merged with the Virginian Ry., another efficient money-maker serving generally the same territory but tilted more eastward. The Virginian had grown rich hauling steam coal to Hampton Roads, Va., for coastal shipping and for export.

By using Virginian tracks, the N&W can haul 77% more coal tonnage with the same number of diesel units than over its own tracks alone. Last year, the combined N&W-Virginian net income after taxes came to $60.7-million, or 24.6% of operating revenues. And that was in spite of a 116-day steel strike and the fact that it was too soon to gain much of the predicted $12-million annual saving from merger.

• **N&W-Nickel Plate**—Not content with this showing, the N&W is now talking merger with still another profitable line, the Nickel Plate.

The Nickel Plate doesn't parallel or even connect with N&W. No grades can be eliminated, few if any duplicate facilities abandoned. However, a merger would give the N&W direct access to important markets for metallurgical coal, and it would diversify the N&W's traffic to a more desirable mix of 50% coal and 50% merchandise, instead of the present heavy reliance on coal. Finally, one efficient railroad serving a vastly expanded territory could draw more traffic from competing lines.

Not only would such a super-railroad be busier, more efficient, and more profitable but its borrowing power would grow proportionately. There's almost no limit to the improvements a railroad could make if it could raise the money. This would be no problem for a combined N&W-Nickel Plate.

• **C&O-B&O**—Pres. Walter J. Tuohy of the C&O won't concede that the specter of N&W's expansion in his road's territory had anything much to do with C&O's starting negotiations with the B&O. He insists the idea goes back to November, 1957, when the New York Central and Pennsylvania roads were talking merger.

Nevertheless, Nickel Plate-N&W negotiations started in earnest on Mar. 18, and the C&O-B&O deal caught fire only three weeks ago. It is also noteworthy that the Pennsy, privately described by one C&O official as "that octopus," owns 33.55% of the N&W's outstanding voting stock—enough for effective working control.

Like the N&W-Virginian, a combined C&O-B&O would be able to handle its coal haulings more efficiently. The C&O's coal is preponderantly metallurgical, therefore subject to swings in the steel business; the B&O's coal is preponderantly used in steam-fueled power plants. The two roads could pool rolling stock and eliminate duplication in facilities.

Like the N&W-Nickel Plate, a C&O-B&O could gain direct access to more coal markets and could generate more merchandise traffic by offering faster service and one bill of lading to more points.

The C&O and B&O are going about their merger attempt in an unusual way. Directors have agreed to exchange stock, apparently on a ratio based on present earnings. Only after such an exchange will the roads determine which facilities are superfluous. Usually, such studies come first, to see which road's facilities must be scrapped, and the exchange offers are based on these findings. But C&O thinks that the making of such studies by two independent railroads, each trying to squeeze the last penny out of a merger, often leads to a disruptive squabble.

• **Three-Way Deal?**—After C&O's annual meeting in April, the New York Central was said also to be talking with C&O and B&O, but the Central has kept silent. According to one rumor, the Central—which would feel a competitive squeeze from mergers now being discussed—would be invited to join a merged C&O-B&O. This would create a colossus, far bigger than the Pennsy, now the nation's largest railroad.

Some critics say such a road would be too large to manage efficiently. Railroads are, by definition, spread all over the map, hence hard to manage. Industry leaders are agreed that mere bigness is no virtue, that advantages of mergers must come from economies and increased earning power. These, in turn, create the money to modernize equipment and methods.

It is hard to see how either the Central or the Pennsy would be strengthened by being enlarged. It may be significant that neither road shows any inclination to fight mergers that strengthen its competitors.

• **Erie-Lackawanna**—The first clue to ICC's attitude toward these mergers will probably be found in the coming decision on the proposed Erie-Delaware, Lackawanna & Western consolidation.

Unlike the others, this is not a combination of strength but of weakness. In the words of one observer, "They can barely subsist apart and are unlikely to set any earnings records when they become one." This goes double since stronger roads on all sides of them have begun merger negotiations.

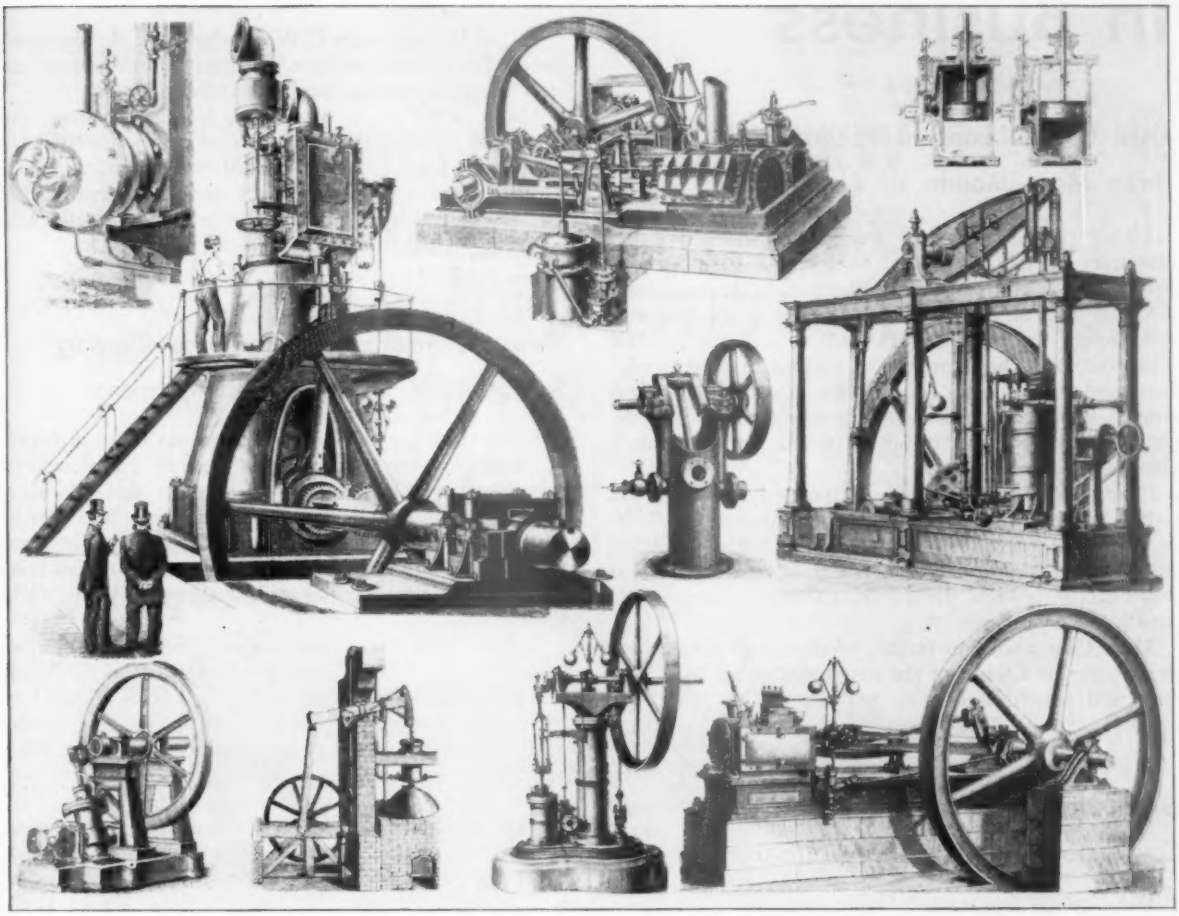
Erie-Lackawanna have completed their studies, agreed on terms, gotten stockholder approval, received endorsement of an ICC examiner. All that remains is approval by the full ICC, and a preliminary finding is expected "any time." Meanwhile, the Erie figures delay is costing $37,000 a day in potential savings.

• **Western Roads**—Though merger talks are perhaps liveliest in the Northeast, that's not the only significant area or even the one where a chain reaction is likely to start.

The Chicago, Rock Island & Pacific and the Chicago, Milwaukee, St. Paul & Pacific are waiting for results of engineering studies before proceeding with their proposed merger. Both have bleak pasts but are making comebacks under strong, young managements.

If this merger goes through, the Chicago, Burlington & Quincy, the Great Northern, the Northern Pacific, and the Spokane, Portland & Seattle are likely to break out of their since-1956 stalemate. The Chicago & North Western is already seeking to acquire the Minneapolis & St. Louis for $21-million.

In the Southeast, the Seaboard-Coast Line merger would put pressure on the Southern Ry., but it's hard to see what other big road would be available for merger with the Southern.



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April C-of-L Leaps to Record High; Three More Months of Rise Feared

Living costs reflected by the government's monthly consumer price index soared to a record high in mid-April, 126.2% of average 1947-49 prices. The jump from a March level of 125.7% was the largest in about a year.

Although the government's analysts said the increase "does not mark the beginning of a strong upward trend," they said further rises are possible in June, July, and August, when food prices will be seasonally higher. The index figure for May is not expected to show much change.

Rising food costs were the important factor in the index climb. The food component for April was 119.5% as compared with 117.7% in March (BW—Apr.30'60, p142). The high level of new car sales in April also was a factor, holding up the transportation component, usually down in April.

More than a million factory workers will get cost-of-living raises as a result of the new index level. Most, in auto and related industries, will get 2¢ an hour, the others 1¢.

• • •

GAO Blasts Air Force for Letting Contractor Run Its Ballistic Program

The General Accounting Office this week rapped the Air Force for continuing to use a private contractor—the Space Technology Laboratories of Thompson Ramo Wooldridge, Inc.—as technical director of the multi-billion-dollar ballistic missile program.

GAO told Congress the Air Force should have its own facilities to handle the program, asserting that the work of other ballistic missile contractors was inhibited because they considered STL a potential competitor.

Similar criticism has come from the House Government Operations Committee, and the Air Force is working to set up a nonprofit corporation, similar to Rand Corp., to direct its missile and space projects.

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Hurley Quits as Chairman, President Of Curtiss-Wright; Berner Moves Up

Roy T. Hurley resigned this week as president and chairman of Curtiss-Wright Corp. The board immediately elected T. Roland Berner, New York lawyer and a C-W director since 1949, as chairman; the post of president was left vacant. **Hurley will remain with the company for "the development of new products."** Neither he nor the company gave any reason for his resignation.

Top management was shaken up with the formation of a new executive committee made up of Berner, Levin H. Campbell, Jr., James R. MacDonald, Donald C. Power, and Lloyd H. Smith—all of them directors. A month ago, Hurley had set up his own executive committee.

In his 10 years with C-W, Hurley took the company out of the aircraft business and into a broad diversification program emphasizing consumer products.

Many of the products—such as Air-Car, Air-Boat, and a rotating combustion engine—have rather limited markets. Last December, the Securities & Exchange Commission investigated C-W after announcement of the engine, quickly followed by a dividend cut, brought wild gyrations in the price of the stock.

• • •

New Indictments Charge Price Rigging By Electrical Equipment Companies

Eight electrical equipment companies and employees of six of them were indicted last week by a Philadelphia grand jury on charges of rigging prices and allocating sales of power switching equipment, Navy and marine switchgear, and other power distribution gear. **The three new criminal indictments were accompanied by civil complaints seeking injunctions against alleged antitrust violations.**

Seven of the companies—General Electric, Westinghouse Electric, I-T-E Circuit Breaker Co., Federal Pacific Electric Co., Joslyn Mfg. & Supply Co., H. K. Porter Co., Inc., and Southern States Equipment Corp.—were indicted in February on similar charges (BW—Apr.16'60, p29). The eighth company, Schwager-Wood Corp., was not involved in those indictments.

This week, a third grand jury brought in four more indictments, naming seven companies and 11 of their employees. These charges involved sales of transformers estimated at $460-million a year. And the Justice Dept. made no secret of its hopes the case would lead to triple-damage suits.

The latest indictments included: General Electric and two of its vice-presidents; Westinghouse Electric and one vice-president; Allis-Chalmers and one vice-president; Kuhlman Electric Co. and one vice-president; McGraw-Edison Co.; Moloney Electric Co.; and Wagner Electric Corp.

A fourth grand jury is reportedly investigating sales of generators and turbines.

• • •

Business Briefs

Disneyland, Inc., and Walt Disney Enterprises this week asked a Los Angeles court to enjoin **Marco Engineering Co.** and its head **C. V. Wood, Jr.**—a former Disneyland vice-president—from making representations that they "conceived the idea for Disneyland, or designed, engineered or constructed Disneyland." The suit charges misrepresentation by Marco and Wood in promotion of such parks as New York's Freedomland (BW—May21 '60,p32). Wood denies any misrepresentation.

The Tennessee Valley Authority dipped a first tentative toe into the nuclear power business when it was authorized to operate the $30-million, 25,000-kw. experimental gas-cooled reactor being built at Oak Ridge, Tenn., by the Atomic Energy Commission.

PRESENTING THE NEW ROYAL ELECTRIC, THE TYPEWRITER THAT PAYS OFF RIGHT HERE

The proof is right on the paper, just asking to be rolled out and run up against the work of any other typewriter. ■ For every precision-tooled ounce of this machine is devoted to making the clearest, cleanest, most rousingly *readable* type-writing ever. ■ How does this new Royal do it? Three ways: by making *more crisply etched* letters than ever . . . by making a *more uniform inking* than ever . . . by making a *more accurate positioning* of words and letters than ever. ■ Now this next part is for people who do the typing, but the people who do the dictating will be glad to know it. The same Royal precision that makes it possible for this typewriter to write so well also makes that writing easier, *feelably easier*. You'll feel it with the first paragraph you write. ■ Call your Royal Representative and write that paragraph soon.

ROYAL®

A PRODUCT OF ROYAL MCBEE CORP., WORLD'S LARGEST MANUFACTURER OF TYPEWRITERS

THE TYPEWRITER ELECTRICITY HAS BEEN WAITING FOR

At 00h00m01s GMT, May 1, 1960, Martin logged its 523,692,000th mile of space flight

ICBM HARD BASE:

This mammoth excavation, somewhere in the United States, will soon be a "hard base"—an almost invulnerable underground launch site for the Air Force TITAN Intercontinental Ballistic Missile.

It is an important element in the United States Air Force Strategic Air Command's mission—to prevent war.

The job of this TITAN hard base—and the others like it—is to insure that we will have such devastating retaliatory power, even under concentrated nuclear attack, that no enemy will consider war.

Bases such as this cannot be built overnight. It is a credit to the foresight of our military planners that the bases will be operational concurrent with the TITAN ICBMs now in production at Martin-Denver and undergoing advanced tests at Cape Canaveral.

MARTIN

CLOSE COVERAGE

In the colorful world of women's swim wear, Catalina is a name to conjure with. This California manufacturer has supremely mastered the delicate art of flattering the female figure.

A subsidiary of the Kayser-Roth Corporation, Catalina takes infinite pains in the creation of original designs and the selection of fabric yarns. And in the matter of insurance, Catalina is equally demanding. Like all subsidiaries of the Kayser-Roth Corporation they're insured by INA.

Why INA? Because INA has developed an insurance plan that fits the needs of the Kayser-Roth Corporation as snugly as a Catalina bathing suit—a plan that includes workmen's compensation, blanket liability, automobile physical damage and liability, and fire insurance.

And the Kayser-Roth Corporation is just one of a host of leading companies who now benefit from such protection. If you're looking for close coverage . . . coverage that's formfit for your business, talk with any INA agent or broker.

Insurance Company of North America
Indemnity Insurance Company of North America
Life Insurance Company of North America
World Headquarters: Philadelphia

INSURANCE BY NORTH AMERICA INA

WASHINGTON OUTLOOK

WASHINGTON
BUREAU
MAY 28, 1960

Foreign policy becomes a prime political issue for 1960. The bipartisan, or non-partisan approach, to foreign policy is evaporating. And not only are Democrats and Republicans pulling apart, but each of the parties has developed internal schisms.

The maneuvering of Presidential candidates to adjust to this new circumstance, which suddenly looks as if it could be the most important of this political year, is going on—and few positions have hardened. But enough time has elapsed since the failure at the summit, and enough has been said by enough people, to determine who will try to stand where on what probably will become known as the "peace issue."

Adlai E. Stevenson and Gov. Nelson Rockefeller demand new attention. Each has compelled his party to pause in what, only two weeks ago, looked like a headlong rush to nominate someone else for the Presidency.

The most important post-summit development, in terms of sheer domestic politicking, is the emergence of Stevenson the Democrat and Rockefeller the Republican as leaders of, or principal spokesmen for, a position which holds that a great national debate on foreign policy is essential.

Odds still are against both of them, and particularly against the New York governor. Vice-Pres. Richard M. Nixon, whom Rockefeller would have to upset, has well over the 666 convention votes needed to assure the GOP nomination. So, in a mechanical sense, Nixon's position seems secure. But great events can cause mechanical upsets—and much of what appears to be Nixon strength today could conceivably turn into Rockefeller support.

What has happened is this: Stevenson has grabbed the play away from his rival Democrats and, on this issue alone, emerges again as a real factor in the race. Rockefeller has injected himself vigorously into the Republican picture, offering an alternate choice—himself—to the party if its majority should decide that Eisenhower's foreign policy has failed and that Nixon, who has been associated with it, should be bypassed for the nomination.

Rockefeller put the GOP half of this appraisal beyond question on Wednesday of this week when he declared himself available for a draft. This was enough to abort Nixon's attempt to get commitments of all, or part, of the 96-vote New York delegation.

The next moves by Rockefeller and Stevenson may be crucial. The two are critical of the handling of the spy plane episode that preceded the summit conference collapse. In an even larger context, they appear to be fairly close to agreement on one major premise—that is, the Administration proceeded toward the summit under what Rockefeller has termed some "illusions" about Soviet intentions.

But neither Stevenson, in his famous "crowbar and sledge hammer" speech at Chicago, nor Rockefeller, in a formal statement at the beginning of this week about his own feelings on a sudden worsening of international tensions, proposed a substantial alternative course of policy.

What they need to do, the current line of reasoning hereabouts goes, is to strike out quickly to capture, or try to capture, the majority following among their parties. And this will require much detailed exposition of their views on U. S.-Russian relations—both in the past and, particularly, in the future.

Insofar as the past is concerned, Rockefeller needs only to cite his rec-

ord. He never subscribed to the conciliatory policy that the Administration began following toward the Soviets in 1959, and when Premier Khrushchev visited New York the Governor was polite, but obviously cold, toward him—clearly, as Rockefeller seems to be saying now, under no "illusion."

All the candidates have had time to react.

Vice-Pres. Nixon takes a tougher line on Russia. Even before Pres. Eisenhower's midweek radio-TV report to the nation, Nixon began shifting away from the conciliatory policy line that the Administration adopted in 1959 leading to the spirit of Camp David. Nixon is the man behind the GOP campaign policy line that emerged this week: A Republican in the White House would deal more firmly with the Russians than a Democrat.

Sen. John F. Kennedy—still the leading Democratic contender—has gone further than most of his party in specific terms. Some Democrats think Kennedy made a strategic error, but he has committed himself to a line that holds among other things (1) Eisenhower should have "expressed regret" to Soviet Premier Khrushchev about the U-2 spy plane incident in an attempt to keep the Paris conference going, and (2) sending the plane over Russia was "indefensible" in the first place.

Sen. Stuart Symington proposes a $3.5-billion addition to defense expenditures (page 28). Symington's major thesis is that U. S. military weakness permitted the Russians to sabotage the Paris conference.

Sen. Lyndon B. Johnson, once again taking a more moderate position than his Democratic rivals for the Presidency, talks privately about putting an extra $2-billion or so into defense spending. Johnson has displayed little enthusiasm for investigating Eisenhower foreign policy, bears down on the need for keeping any inquiry out of partisan politics—a practical impossibility. Johnson fears, and stakes his reputation on a feeling that, a partisan brawl over foreign policy will backfire on Democrats.

—•—

Republican optimism about the Farm Belt continues to rise.

A recent poll of Iowa farmers shows Nixon running strong, well ahead of either Stevenson or Kennedy. Wallace's Farmer, one of the leading farm publications of the Midwest, prints the result of its poll in the May 21 issue. It shows Nixon leading Kennedy, 43% to 29%, with 28% undecided, and the Vice-President ahead of Stevenson, 47% to 32%, with 21% in the undecided column.

The important thing about these margins, GOP strategists say, is that they indicate Nixon could get the heavy rural majorities—upwards of 55% of the farm vote—that are necessary to offset Democratic margins in the cities in order to carry the states.

—•—

No new bans on industry contacts with regulatory agencies—that's the prospect for this year.

House investigators have concluded, after examination of gas industry practices at the Federal Power Commission, that legislation is needed to halt informal, off-the-record meetings between regulators and the regulated—not only at FPC but also elsewhere in government. There is no agreement on details, however, and time is running out. With little more than a month left of this session, this issue will go over to 1961.

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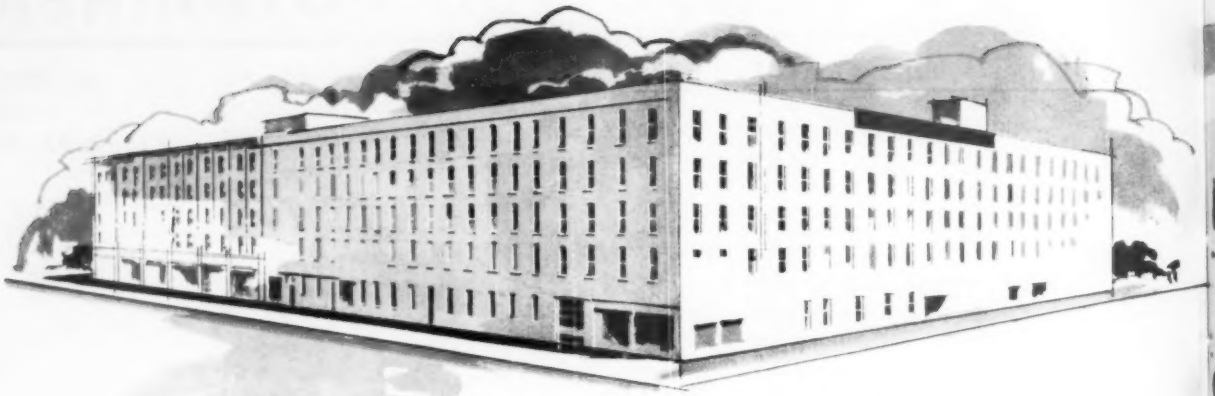
CONTROL OR CONFUSION?

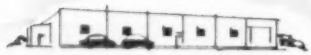
The vital difference is a matter of PRECISION!

This is a basic sub-subminiature switch. Actual size: smaller than a dime. But, it can be mighty important when, as a space-saving component of an electrical system, it controls a key function in your electrically controlled equipment. On your product it would cause serious ill will if it failed to serve your customer. The significant difference in a sub-subminiature switch is a matter of *precision.*

Designing and building such a switch is akin to the watchmaker's art. And, like a mainspring, if it fails to operate nothing else moves. Such a vital component must be built so you can install and forget it. That is reliability.

The precision behind that reliability is the story of over 12,000 types of switches, designed and built for science and industry by MICRO SWITCH, a division of Honeywell. We think the following pages will show you that precision cannot be taken for granted in just any brand of switch.

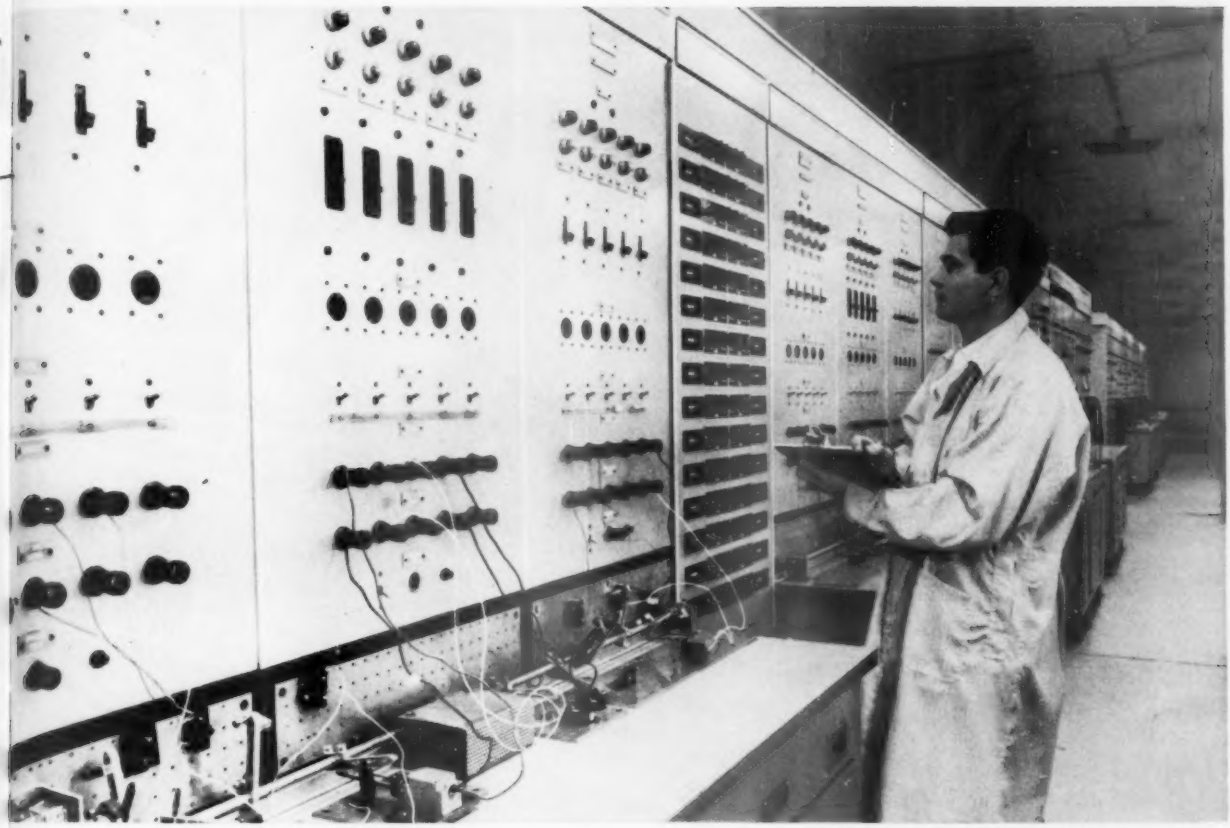




Precision from experience

Over 20 years ago MICRO SWITCH pioneered the miniaturization of switch design. Shrinking switches to fit tight product situations became an industry. Today some of these sub-subminiature control centers can literally hide behind a dime.

From the very start, precision was MICRO's watchword. Throughout the world, many millions of these precision mercury and snap-action switches are serving science and industry. In solving customers' switch problems, MICRO SWITCH has designed more than 12,000 different types—a reassuring kind of experience to put to work on your switch requirements.



Aging, made to order. Here millions of operations—years of wear—can be monitored at the stations on this 72-foot control panel. Electronic monitoring and chart monitoring of each operation goes on around the clock. The remotely located test set-up precisely duplicates the customer's operating methods and environmental conditions.

Precision from engineering

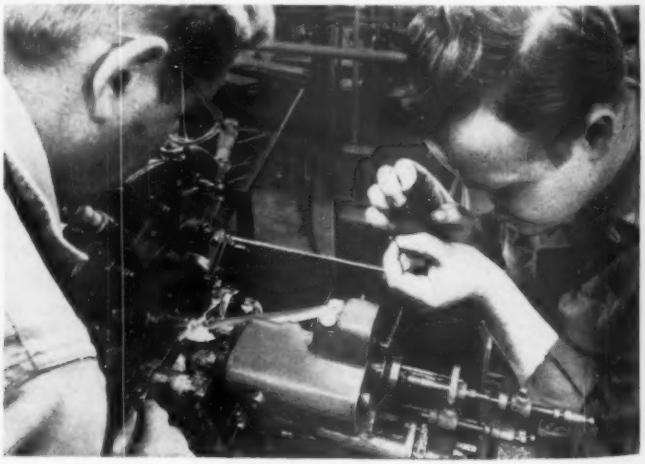
Sensitive way to crush a switch. Records load stress and strain from gram ranges up to five tons. Here MICRO SWITCH engineers test compression and tensile properties of materials and characteristics of switches.

At MICRO SWITCH, the largest engineering staff in the industry is hard at work building new switches and then tearing them down with grueling torture tests. No "ivory tower" thinking here. Every test is carefully planned to precisely duplicate the conditions under which the switch will operate in the customer's plant or product. High-inrush power conditions can be simulated as well as shock and vibration tests at the same frequency range and intensity that characterize the application. Or, ovens where operation is monitored at temperatures up to 1000° Fahrenheit. Other conditions which are accurately reproduced include sub-zero "outside weather"; extreme pressure; radiation; salt spray; sand blasts; moisture, humidity and fungus conditions. Various altitude and speed conditions can also be simulated.

If you're "all thumbs," you need not apply. MICRO SWITCH production workers are adept at fitting tiny parts together with speed that cuts costs, but care that guards precision.

Some operations in the manufacture of subminiature switches are, of necessity, painstakingly delicate. A poor place to save time, for they often represent the very heart of precision.

This production equipment is the same as that used to machine fine watch parts. Significantly, this is an expanding department at MICRO SWITCH, for such precise machining cannot be rushed. Only with more machines can output keep pace with mounting orders.



Precision in production

In production, the preservation of precision gets its most severe test. Mass production can defeat the purposes of painstaking design and testing unless it is just as carefully set up and checked. At MICRO SWITCH four well-equipped modern plants utilize unique production methods that cut costs but guard quality. Predetermined sampling techniques guarantee that switches are constantly pulled off the line for testing.

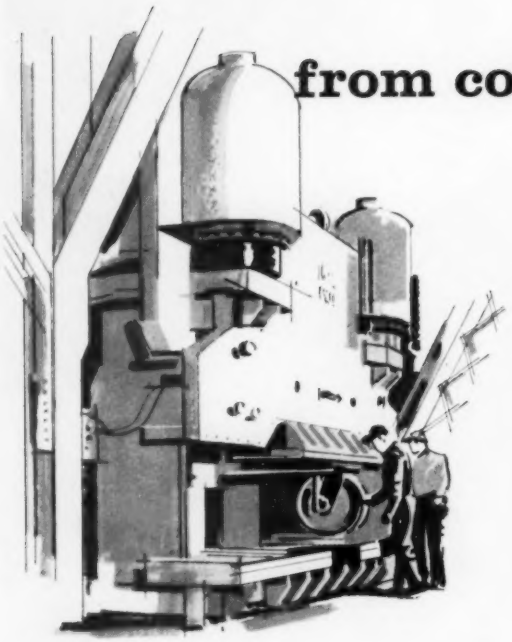
Every new supply of silver contacts is exhaustively tested before it goes into production, another precaution to safeguard MICRO SWITCH reliability. Every inch of beryllium copper entering the plant is measured for exact thickness and physical properties before it can become a famous MICRO SWITCH snap-action spring. Every roll of this precious metal is tested for heat treatment characteristics before production begins.

Only experience like MICRO's can preserve precision and still offer the economies of mass production. No matter how carefully you select a new switch design for your product or equipment, unless the supplier can maintain that precision through the production process, all is lost. We believe this assurance to be one of the most important contributions MICRO SWITCH can offer you.

The image shown on this comparator is large enough to enable engineers to carefully scrutinize the tiny parts of a precision switch to check contour and dimensions.

Assembling precision parts smaller than confetti. This is typical of the production stations where MICRO SWITCH's special talent for working with tiny parts cuts production time, preserves precision and reliability.

Inspection requires magnification in most cases, for miniaturization is the rule, not the exception. Another personalized inspection to preserve switch quality.



from coffee makers to missiles....s

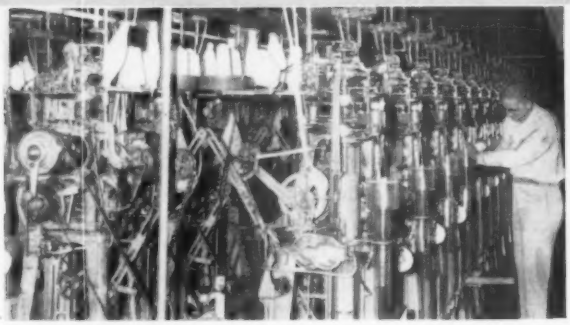
APPLIANCES

Push-button coffee—switches guard quality. No pot watching here. Switches control heat cycle and water flow automatically.

ELECTRONICS

Millions of operations at 400°F. Small size but reliable enough to test electronic parts at rate of 430 tests per hour.

TEXTILE MACHINERY



Protect 1500 costly automatic knitting machines. Broken thread or needle would cause serious damage. Protective switches stop machine.

DATA PROCESSING

Lighted push-button switches cut panel area 50%. MICRO SWITCH design combined indicator light with switch, saved on wiring.

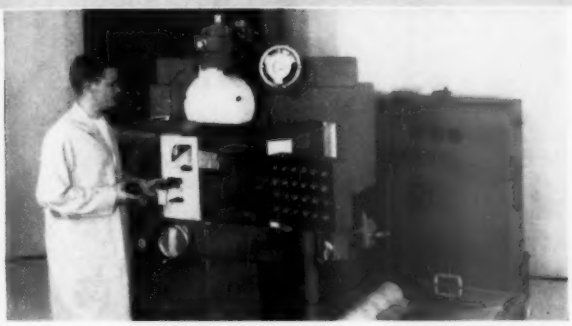
AIRCRAFT

Jets get switch reliability at 1000°F. Precision switch in jet engine warning system must be absolutely reliable at temperatures of 1000°F.

H HONEYWELL **MICRO SWITCH Precision Switches**

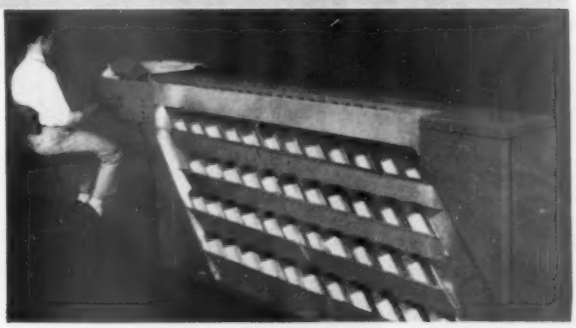
...switches cut costs with automatic control

MACHINE TOOLS



57,000 precise operations required daily on automatic grinder controlled by limit switches. Long life despite 19,000 operations per shift.

OFFICE MACHINES

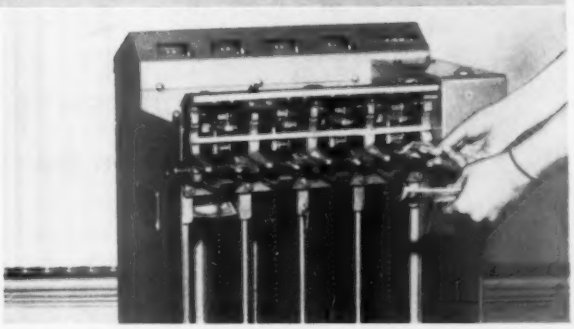


Switches make possible automatic push-button sorting of office mail. Up to 4,500 sorts per hour into as many as 50 divisions.

PRODUCTION APPLICATIONS

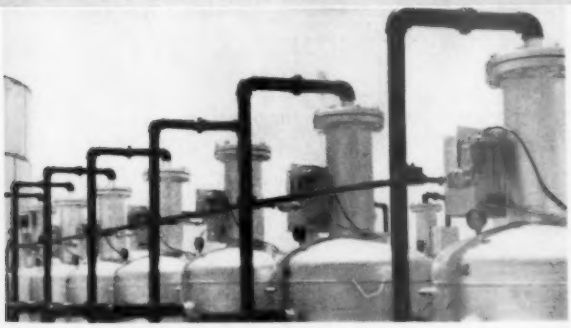
"Plug-in Limit" Switches increased production 6% by reducing down time on lumber sorting machine.

BANK MACHINES



Ultra-sensitive switch detects thickness of buck. Paper money counter uses switch to detect when more than one bill passes through.

PETROLEUM EQUIPMENT

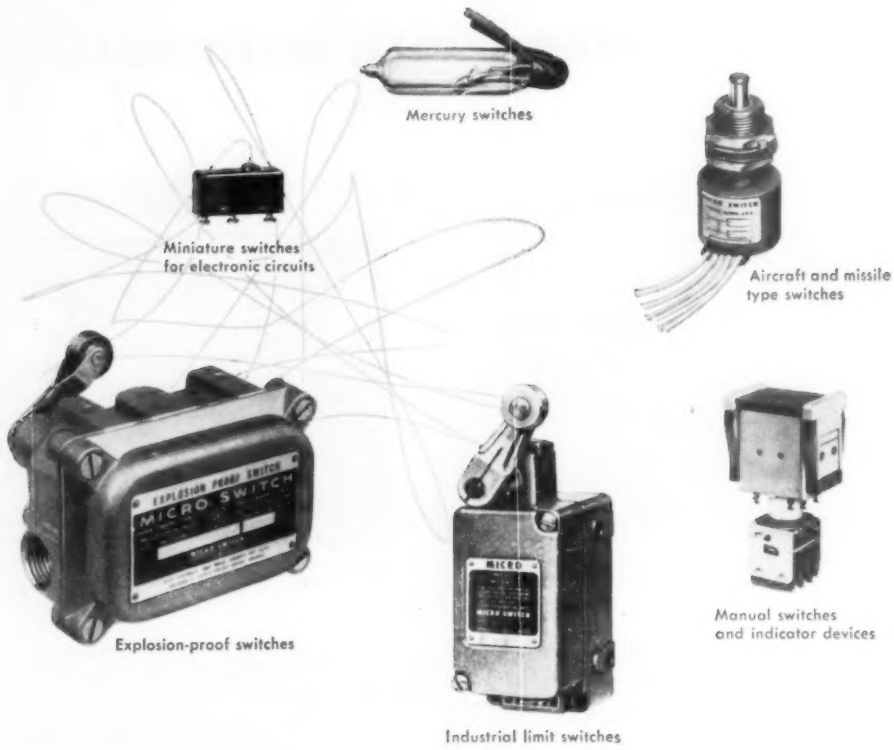


Explosion-proof switches cut risk. Safely start electric motor on gas pumps and serve in fume-laden refineries.

GROUND SUPPORT-MISSILES

Penny-size switches control missile launching. Tiny switches in timers are absolutely reliable for controlling crucial final phase.

MICRO SWITCH Precision Switches

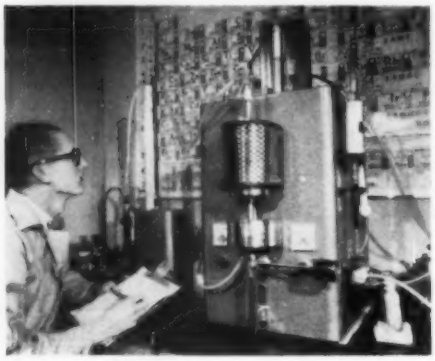


A nearby MICRO SWITCH branch office can help

Precision Switches Cut Costs

New ideas in automatic control for your production line may be possible with today's new precision switches. On your product, these reliable control centers can give you an *automatic* competitive advantage. Among the 12,000 different precision switch types in the MICRO SWITCH line, there are sure to be better answers for some of the problems your production and design engineers are studying.

Expert engineering help is available without obligation from a nearby MICRO SWITCH branch office. The address may be found in the Yellow Pages. Let MICRO SWITCH precision switches help you get a bigger share of the "booming '60's" through more automatic methods.



MICRO SWITCH IS A DIVISION OF HONEYWELL . . . FIRST IN CONTROLS

The basic and applied research being carried on in Honeywell's corporate laboratories yields important data for use in the development of new switch ideas. Another reason why MICRO SWITCH Precision Switches are the finest.

MICRO SWITCH . . . FREEPORT, ILLINOIS
A division of Honeywell
In Canada: Honeywell Controls Limited, Toronto 17, Ontario

Honeywell
MICRO SWITCH Precision Switches

How Companies Are Meeting Their Dividends

COMPANY	FOR 1959 DIVIDEND PER SHARE	FOR 1959 PERCENT OF EARNINGS	FIRST QUARTER 1960 DIVIDEND	PAYOUT WAS THIS PERCENT OF EARNINGS IN THE THIRD QUARTER	FOURTH QUARTER	FIRST QUARTER
Allied Chemical	$1.575	62.7%	$ .45	63.6%	86.5%	66.2%
Alcoa	1.20	47.6	.30	53.6	47.6	53.5
American Can	2.00	82.6	.50	43.9	*	142.9
Amer. Tel. & Tel.	3.225	61.8	.825	63.5	62.0	62.5
Amer. Tobacco	2.50	54.2	1.00**	38.2	42.4	102.0
Anaconda	2.50	45.2	.50	43.1	88.5	41.3
Bethlehem Steel	2.40	98.4	.60	*	87.0	54.5
Chrysler	1.00	*	.25	*	*	20.0
Du Pont	7.00	78.5	1.50	65.5	123.8	71.4
Eastman Kodak	1.80	55.7	.45	41.1	71.9	72.6
General Electric	2.00	62.7	.50	61.0	48.5	83.3
General Foods	2.60†	52.4	.65	53.3	58.0	45.8
General Motors	2.00	65.6	.50	106.4	94.3	43.9
Goodyear	.825‡	36.0	.225	36.4	43.3	44.1
Intl. Harvester	2.10¶	41.2	.60	51.0	65.9	NA
Intl. Nickel	3.00c	51.4	.75c	47.8	56.8	88.2
Intl. Paper	3.00‡	48.3	.75	49.0	43.6	55.1
Johns-Manville	2.00	53.6	.50	49.5	51.0	90.9
Owens-Illinois Glass	2.50	48.1	.625	37.7	60.1	65.1
Procter & Gamble	2.20††	NA	.65	38.5	48.2	56.5
Sears, Roebuck	1.40‡‡	53.0	.30	44.1	57.9	83.3
Standard Oil (Calif.)	2.00	49.9	.50	51.0	43.1	52.1
Standard Oil (N.J.)	2.25	77.3	.55	73.3	84.5	69.6
Swift & Co.	1.60	50.0	.65	NA	38.8§	NA
Texaco	2.60‡	44.4	.65	36.8	56.3	40.4
Union Carbide	3.60	63.2	.90	74.4	60.4	64.3
United Aircraft	2.50	58.6	.50	45.5	62.5	52.6
U. S. Steel	3.00	70.6	.75	*	170.5	38.1
Westinghouse	1.05	43.2	.30	40.0	36.1	54.5
Woolworth	2.50	62.0	.625	NA	48.3§	NA

NA Not Available. C Payable in Canadian funds, after deduction of Canadian withholding tax.
* Loss. ** Includes extra † Fiscal year ending March 31. ‡ Plus stock. ¶ Fiscal year ending Oct. 31.
§ Six month figures. †† Fiscal year ending June 30. ‡‡ Fiscal year ending Jan. 1.
Data: Francis I. DuPont & Co.

Keeping Dividends on Even Keel

Oscar M. Lazrus, chairman of the Benrus Watch Co., Inc., had good news for shareholders at their annual meeting last week.

"It's my earnest hope," he said, "the conditions will justify my recommending that the board declare a dividend before the end of the current fiscal year." If Benrus does pay a dividend, it would be the first since 1958, when the company paid 10¢ a share.

Benrus is not the only company that's intent on liberalizing its dividend policy. Since the economy came out of the 1957-58 recession, dividend payments have been moving up even faster than corporate profits. In fact, the Commerce Dept. says that, in the first four months of the year, dividends declared by corporations that report to the public amounted to $4.2-billion. That is 7.3% ahead of the level a year ago, and it's higher than the estimated 5% to 6% increase in corporate earnings overall.

Dividend payouts hit a record of $13.2-billion in 1959. Now some economists and stock market analysts are predicting that this year's total will exceed $14-billion. However, businessmen don't fully share this confidence.

• **Business View**—In a nationwide survey made by BUSINESS WEEK this week, corporate executives predict that the rate of increase in dividend payouts will taper off as the year goes on. Corporations are troubled over the way their profit margins are starting to slim and payout ratios—the proportion of net income paid in dividends—are beginning to creep up (table).

The 30 companies in the table comprise the popular Dow-Jones industrial stock average. They present a mixed picture on dividend policy, some of them paying out substantially more of their earnings in dividends than last year, some less. But on the whole, their payout ratios are well under the levels of early 1958, when the recession put a crimp in earnings. All are anxious not to push payout ratios that high again; they want to avoid the choice of cutting the dividend rate or living with a serious depletion of cash resources. So, most plan to go slowly in raising dividends, even though at the present level of prices, the Dow-Jones stocks have a dividend yield of only 3.4%.

• **Regularity**—Most companies insist that their dividend policy is not subject to constant change. They aim at setting a rate that can be maintained in

. . . rising profits are the most important factor behind the largesse management is distributing to stockholders . . .

(STORY on page 55)

good times as well as bad. They like to think of their current payout rate as a floor—but they don't plan to push through an increase if it might be canceled next time around.

Sometimes, though, corporations find that even the best intentions are hard to live with. In 1958, for instance, dividend payments were maintained, but only at the cost of pushing the payout ratio "uncomfortably high," as the finance officer of one large corporation puts it.

From a low of 48.6% of earnings paid out in dividends in 1955, the payout ratio jumped to as high as 78% in the first quarter of 1958. It has since dropped back, but companies don't want that same thing to happen if the economy should turn down in 1961 or 1962. That's why they are being cautious about increasing dividend rates now, even though profits are high.

• **Stability First**—Charles M. White, chairman of Republic Steel, sums it up this way: "Republic feels it is much more important to maintain a regular dividend level than to be up and down. Much of our stock is held by estates, widows, and so forth, and we feel they need stabilized income."

He adds that another factor tending to hold down dividend payouts is the company's need "to supplement inadequate depreciation allowances with retained earnings to replace equipment. . . . We must plow back a large part of earnings."

White's cautious attitude on dividends is echoed by executives in a wide cross-section of other industries:

• An upstate New York paper company says, "We're struggling to get money to keep the plant up. We have no intention of liberalizing dividend policy."

• Dresser Industries, a big oilfield supplier, sliced its dividend rate from 40¢ quarterly to 30¢. Behind the reduction, according to Chmn. H. N. Mallon, was the "discouraging" outlook for domestic drilling, where about 40% of Dresser's business is concentrated.

• P. C. Spencer, chairman of Sinclair Oil—which failed to earn its dividend last year, says the company has "every desire to maintain the present dividend rate—so long as there is any reasonable prospect of restoring market prices for petroleum products to a profitable level." Sinclair, like other oil companies, has been looking to its cash flow—earnings plus depreciation and other non-cash charges—to cover dividends and expenditures.

• John Kusik, vice-president of the Chesapeake & Ohio Ry., says, "We believe we should maintain a stable dividend rate. Cash flow cannot be used to support a rate that is too high, but can be the basis for raising to a higher rate . . . if the cash flow will give safety to that level."

• **Most Paying More**—Despite the generally pessimistic feeling of most businessmen about the dividend outlook, the fact remains that few industries are not paying out more now than they were a year ago. In the first quarter, only three industries—oil refining, railroads, and transportation equipment makers (excluding autos)—failed to top their 1959 payouts.

It's clear that rising profits are the most important factor behind the largesse that management is distributing to stockholders. (At International Resistance Co., where business is "booming," the annual payment was boosted 50% from 20¢ to 30¢.) If total profits do go over $50-billion (pre-tax) as the U.S. Treasury is predicting, the temptation on boards of directors to pay out more in dividends will be even stronger, in spite of all the talk about setting "sustainable" dividend rates, and the need to conserve cash for modernization.

• **Trying Hard**—Meanwhile, some companies are having harder going, even to sustain current rates. In most cases, those threatened with reductions have been too optimistic about earnings prospects. They are still trying to hold the line, although some say they may be squeezed pretty hard.

Industrial companies figure that their payouts must be high in order to keep their stock prices up, and a high stock price is often needed for purposes of acquisitions or loans. On the other hand, companies that deliberately hike their payouts are in danger of being hurt if their earnings fail to advance. As one company president put it: "The market isn't going to support your stock on a payout alone. Investors want to be assured that you can continue paying, and that depends on earnings."

• **Growth Stocks**—Actually, investors have been favoring stocks that offer either a very small payout or none at all. The rise in the price of growth stocks—particularly in the electronics field—has not been based on their dividend record.

As one electronics executive explains, "We're being bought because our business is increasing by leaps and bounds. People are after the capital gains, not the dividends."

"We can't afford dividends," another electronics man adds. "We have to plow back all the funds we get."

• **Good Health**—But many companies feel that paying dividends is a sign of good health. For example, Cudahy Packing Co., sixth largest meat-packer with 1959 sales of $354-million, has not paid a dividend for some time. Pres. L. F. Long says, "We hope to resume in the not too distant future." The decision, he adds, depends on earnings in the second half.

While most companies say higher earnings are the key to higher dividend payouts, some companies have been able to boost dividends in anticipation of an increase in earnings. At Philip Morris, Inc., for example, the dividend rate was boosted 20% last November, from a quarterly rate of 75¢ per share to the new rate of 90¢. An important factor behind this decision, says Treas. Hugh Cullman, was a "topping out" in the company's capital spending program, coupled with increasing profits as new plant and equipment came on stream. "We're not a cyclical company," he says. "We don't expect to have any difficulty meeting the 90¢ rate."

Utilities have also been increasing their payouts steadily. But here, hikes have occurred only when higher earnings justified them. As George Ryerson, secretary of the Northern Illinois Gas Co., puts it: "It is unlikely that we would increase payouts unless we were able to support them for some time." Ryerson says that Northern Illinois normally pays out 60% to 70% of its earnings, to keep its stock attractive.

• **Oil Troubles**—The oil industry, of course, is the darkest spot in the dividend picture—with the possible exception of some of the deficit-ridden railroads. Oil managements were liberal, almost lavish, in their dividend policies during the heyday of 1956 and 1957, when the future seemed to hold nothing but higher and higher sales and profits. Now, with overproduction, depressed prices, and sagging earnings, "there are lots of companies that regret those dividend boosts," says John S. Herold, an oil analyst.

So far, cash flow has sustained dividends at most of the larger companies. But the list of oil companies rumored on Wall Street to be considering dividend cuts is growing longer. Union Oil of California has already reduced its dividend payments, and Sinclair and Standard Oil (N. J.) are also mentioned.

All three companies emphasize that any action on the dividend is strictly up to the board of directors. And all point out that, even with a decline in earnings, cash flow—and in some cases net earnings—still cover their dividends by a healthy margin.

"There's no conceivable reason why we should have to cut the dividend," says an officer at Jersey Standard. END

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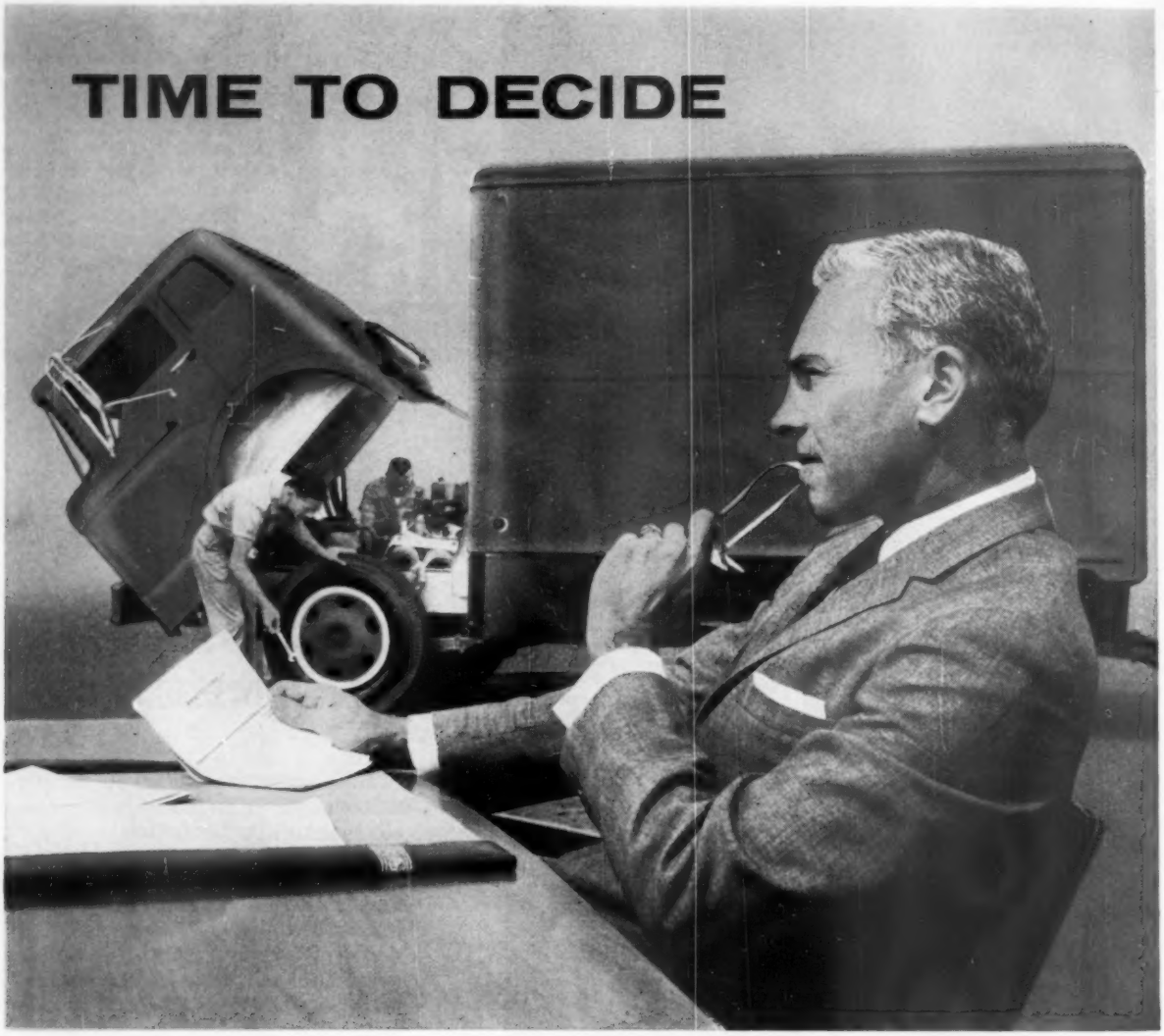

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SEC Challenged on Stock Option

Utility holding company hits out at unwritten ban on offering shares to top management.

The Securities & Exchange Commission is facing the first real challenge of its 25-year "unwritten law" barring public utility holding companies from issuing stock options to key management people.

Directly involved are some 120,000 shares of Middle South Utilities, Inc., common stock, presently valued at about $3.5-million, which the company wants to provide for its top corporate officers. But the issue cuts much deeper than one company. The outcome of the case will settle whether or not stock options will be available to utility company executives.

• **Challenge to SEC**—Up until now, utilities have refrained from issuing options, because SEC has informally taken a position against such practices. SEC feels that it has authority under the 1935 Holding Company Act, which gives SEC considerable power over utilities engaged in interstate commerce.

Last fall, Middle South challenged this authority in a lengthy brief requesting SEC permission to issue options. Last week, SEC staff lawyers filed their answering brief, which took a strong stand against the proposal. The staff brief hit out at Middle South's arguments, concluding that issuance of options to executives would serve neither the best interests of the company nor its stockholders.

The staff brief is not the last word. Now, SEC commissioners will study the case and hand down a decision. If the commission upholds the staff, Middle South will probably go to court to test the validity of the decision. And, as one SEC lawyer put it this week, "It could be a lengthy business."

• **Implied Power**—The 1935 Act contains no express prohibition against granting stock options. But SEC has always maintained that its power was granted "in reverse"—by the fact that Congress did not specifically state that options are permissible securities, such as common stocks and first mortgage bonds.

Until Middle South brought its petition, SEC had never been forced to take a formal stand. In several previous cases, it had relied on its persuasive powers to dissuade holding companies from submitting stock option plans.

• **Test Case**—But Middle South evidently wants SEC to spell out its position. It feels at a disadvantage, compared with electric power companies and other public utility holding companies which can gain exemption from SEC supervision because they operate wholly within a state or in immediately adjacent areas within another state. Middle South, which is engaged in interstate dealings—the only kind that come under SEC—considers that its executives could be lured away by option plans proffered by other exempt companies.

SEC did not use its persuasive powers this time. Instead, it decided to meet the issue head-on, and its staff has made point-by-point rebuttal challenging the Middle South case:

Retention and Recruitment of Top Caliber People

• Middle South: Competitive pressures require it to have a policy of offering stock options for the "attraction and retention by Middle South system of capable executives and the recruitment of capable young men starting out on their business careers."

• SEC: Middle South can show only one case where a top employee left, citing lack of a stock option program as one of his reasons.

Employee Incentive

• Middle South: It is at a competitive disadvantage, in that other electric utilities that aren't subject to the holding company law have stock option plans to induce top officials to perform better.

• SEC: Just the opposite appears to be the case. Taking the record of 12 electric utility companies cited by Middle South as having stock options, the SEC brief argues the percentage increase in Middle South's earnings has outstripped the average earnings record of the 12 companies in recent years.

Congressional Policy

• Middle South: It was the intent of Congress in amending the Internal Revenue Code in 1950 and in 1954 to foster a policy of encouraging stock options, and to include registered holding companies in such declared policy.

• SEC: This is a "startling proposition, arguing in effect that Congress in amending the Internal Revenue Code also amended the Holding Company Act.

Infringement on Corporate Rights

• Middle South: The options proposed are not securities covered by the 1935 act because they are non-transferable. To deny Middle South the right to issue options is to deny the company its management prerogatives.

• SEC: The act makes no distinction between a transferable and nontransferable security. Middle South's argument is an attempt to overcome the "clear language of the act." END

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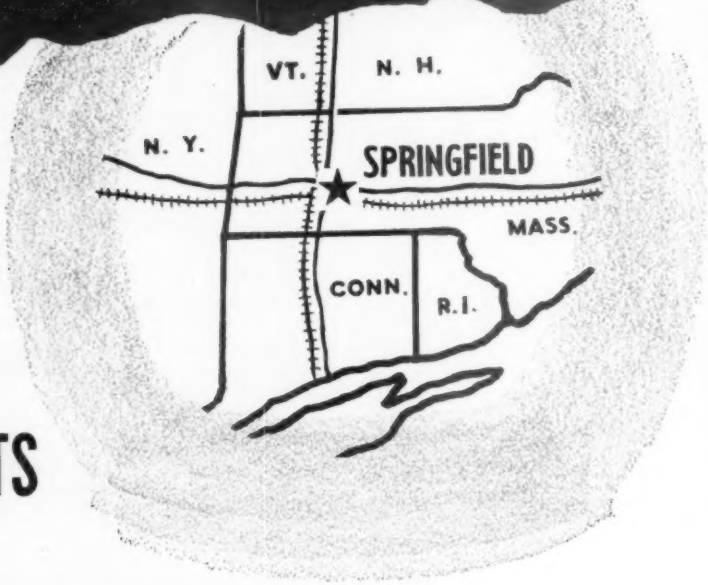

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In Finance

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Capital Airlines Shakes Up Management; Needlands, Whitlock Get Key Posts

The internal strife at Capital Airlines, which had been complicating the line's already desperate financial position, ended last week when Thomas D. Needlands, Jr., a "neutral" Wall Street financial consultant, was elected chairman. **It was a clear-cut defeat for Charles H. Murchison.** As Capital's largest stockholder, attorney, and chairman of its executive committee, Murchison had campaigned for the chairmanship, despite the opposition of David H. Baker, Capital's president. Murchison was ousted as head of the executive committee, the services of his law firm were terminated, but he stayed on as a member of the board.

In short order after Murchison's ouster, Capital shook up its top management. The key man in the new setup is Marvin Whitlock, who was hired away from American Airlines in 1957 to help bail Capital out of its accumulation of problems. He was named senior vice-president for both operations and maintenance. Whitlock's promotion is designed, says the company, to strengthen its existing organization. Needlands, in fact, says that if Capital should be forced into bankruptcy by Vickers-Armstrongs, Ltd., its principal creditor, he would resign at once. **"The whole purpose of this exercise," he says, "is to try to keep Capital above water."**

Meanwhile, time was growing short for Capital to answer Vickers' foreclosure suit on the $33.8-million Capital owes in overdue payments on its turboprop Viscount airliners. At midweek, **observers suggested three possible developments in the court fight but no one was willing to predict what the actual outcome would be:**

- Capital might manage to stall the Vickers claim indefinitely.
- Vickers might call off its suit in view of the management shakeup.
- If Vickers persists, and the court refuses to grant another delay, Capital might be forced to petition for a voluntary bankruptcy.

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Two British Merchant Banks Merge; Observers Call Deal a "Natural"

The wave of mergers among London's tradition-proud merchant banks (BW–Feb.20'60,p158) is continuing. This week, in an unexpected move, J. Henry Schroder & Co., Ltd., and Helbert, Wagg & Co., Ltd., announced a deal that will combine two of the best known banking houses in the City, London's financial district. **The new bank will have assets of about $300-million, which will make it a major force in the English financial world.**

London observers say the new merger will be a "natural." Schroders–almost a bankers' bank–is large, wealthy, conservative, and international-minded. Helbert, Waggs' forte, up to now, has been "industrial banking." Though it is much smaller than Schroders, it has built its reputation handling industrial investments, and floating new security issues, chiefly for British companies.

Schroders and Helbert, Wagg have worked together before, with their most notable venture being the battle in behalf of Tube Investments during its struggle to take over British Aluminium.

• • •

Bank Seeks to Top S&L Payout

The pressure for higher savings rates continues. This week, the New York Savings Bank (assets about $368-million) asked the State Banking Board for permission to boost its top rate on savings to 4%, which would match rate increases proposed by New York savings and loan associations.

At present, New York mutual savings banks operate under a rate ceiling of 3½% for regular deposits, and 3¾% for money on deposit more than two years, while the S&Ls have no legal ceiling. New York Savings says that competitive pressure from the S&Ls is behind its plea for a rate increase.

During April, the nation's mutual savings banks showed a net loss of $95-million in deposits.

• • •

Mack Sets Up "Captive" Finance Branch

Mack Trucks, Inc., this week joined the growing list of manufacturing corporations with "captive" installment finance subsidiaries. It announced formation of a new subsidiary, **Mack Financial Corp.,** which will take over some $157-million in receivables currently held by the parent corporation. The chief advantage, Mack says, will be to "clean up its balance sheet" which is now "cluttered" with borrowings to carry receivables ($110-million) and borrowing for capital expansion (about $13.2-million). By July, 1961, Mack expects to have eliminated the $110-million debt, and have all its financing operations tied up in a single, separate package.

• • •

Ventures-Frobisher Merger Proposed

The merger between Ventures, Ltd., and Frobisher, Ltd., the two big Canadian mining holding companies, which was rumored last week (BW–May21'60,p162), has been formally proposed. The deal has some unusual twists:

Each Frobisher shareholder will get one Ventures share for every 13 shares he now owns, but will continue to hold his Frobisher shares. These then will represent a claim on about $250,000 in working capital, plus Frobisher's oil concessions in Africa. The oil concessions were left out of the swap because it wasn't possible to appraise their value.

Some Frobisher stockholders plan to fight the deal, claiming Frobisher's assets are worth more than may have been offered. Their claims are not considered good because Ventures already controls one-third of the outstanding stock, needs only another third for approval of the merger.

PRES. EPPERT made one division responsible for almost all marketing, ending three years of organization by product lines.

Burroughs Puts Sales Under a Single Hat

Three years ago the Burroughs Corp. dismantled the highly centralized management structure with which it had grown and prospered for more than 70 years. In its place, it set up product-line divisions such as those in most other large companies, with each division responsible for its own marketing, manufacturing, and the like.

Now Burroughs has junked the product-line divisions. Instead, there's a single marketing division, run from headquarters, to sell almost everything Burroughs makes. The other functions —manufacturing, engineering, product planning—are now centralized, too, though not with divisional status.

Burroughs is too big and well-entrenched to go chasing fads. With sales last year of $360-million, it is fourth largest in its industry. Sales were climbing all the time throughout the last three years—yet it had two drastic reorganizations in that span.

• **Marketing Team**—Ray R. Eppert (cover and pictures), the intense, articulate president of Burroughs, has a ready explanation to offer: "Any company is nothing but a marketing organization. It is a revenue-management team. Any one in it can get or lose you orders."

That, of course, has been true a long time. Why didn't Eppert keep it in mind three years ago when he was helping to decentralize marketing into product divisions? The answer to that question lies not alone in what has been happening at Burroughs, but also throughout industry.

• **Two Businesses**—You might almost say that Burroughs three years ago was in two different businesses—and that the two now have merged.

• Its Burroughs Div. designed, manufactured, and sold accounting machines—anything from a mechanical adding machine to a complicated electromechanical device that calculated, made entries on ledger sheets, and filled out bills.

• Its ElectroData Div. designed, manufactured, and sold electronic computers that digested and recorded information on tapes or cards for science or business.

Either way—with mechanical adding machines or a roomful of electronic gear—the purpose is to do something with information: "data processing." Burroughs and its competitors always

VICE-PRES. K. T. Bement (left) heads marketing efforts. He confers with Eppert and R. O. Baily, assistant vice-president.

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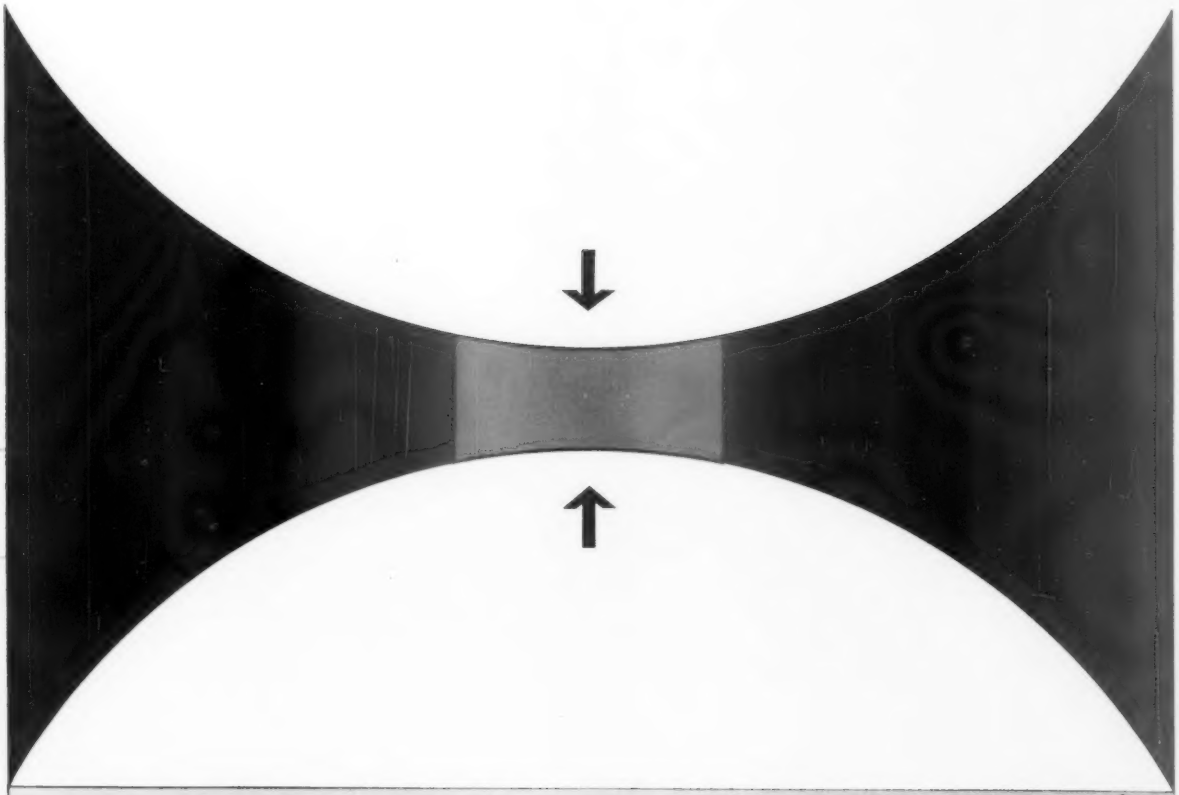

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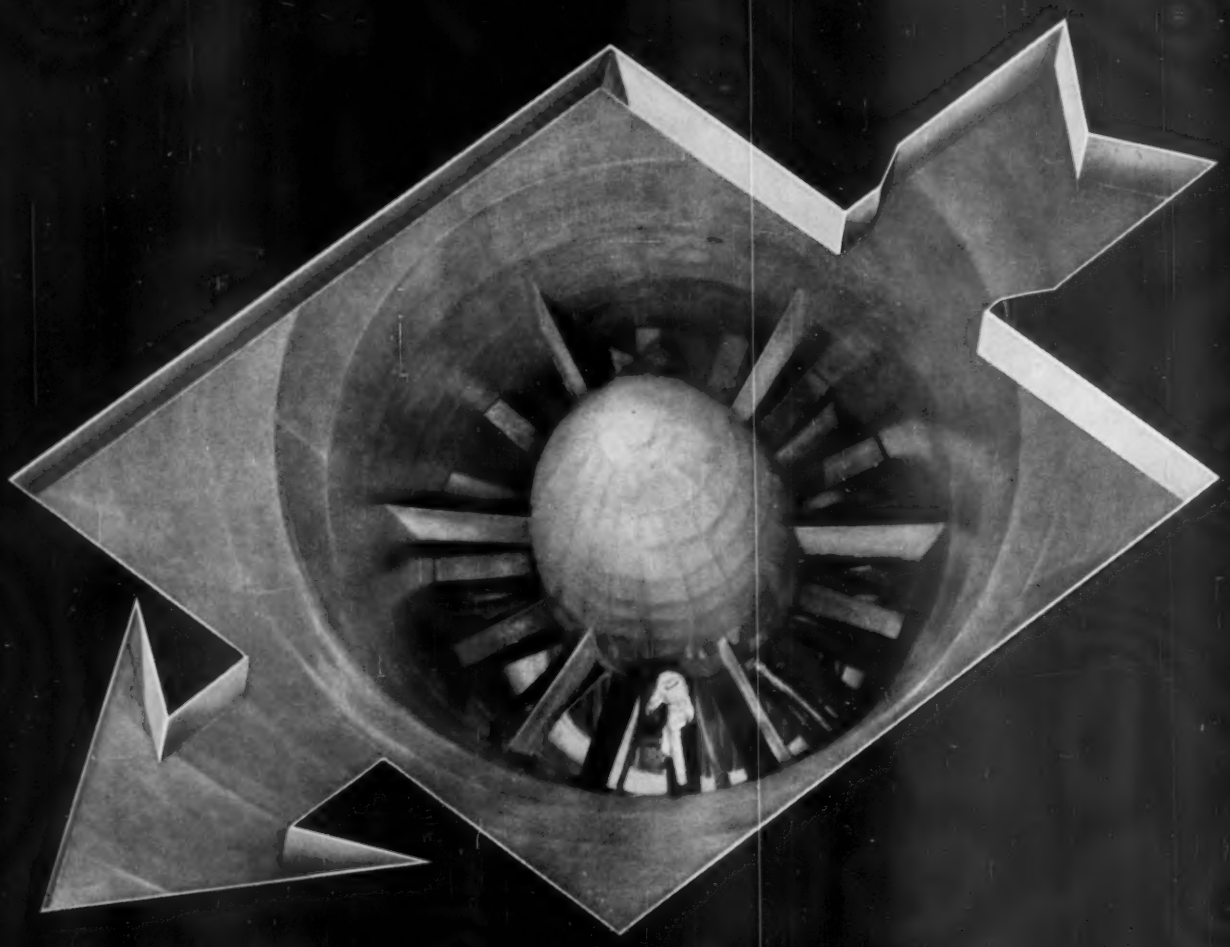

Making man-made winds behave

The big wind in the transonic wind tunnel at Cornell Aeronautical Laboratory, Inc. is produced by a system of delicately balanced propellers, which can be thrown into violent and dangerous vibration by a mere few ounces of unbalance. This is just what happened when lubricant leaked out in differing amounts from the pitch-control mechanisms at the roots of the blades.

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. . . the ElectroData Div. and the Burroughs Div. became competitors—in product planning as well as selling . . .

(STORY on page 62)

will be selling individual pieces of equipment to do specific jobs. But more and more, the need these days is for data processing systems. Supplying such systems is and will be the principal goal of Burroughs from now on. Says Eppert: "We build automation for paperwork factories."

The growth of what Eppert calls paperwork factories has really only begun. To him, this growth constitutes a revolution just as dramatic and significant as the industrial revolution that created the metalworking factories.

I. The Paper Flood

Eppert's meaning has its roots in a phenomenon that by now has been so thoroughly explored in print as to become tiresome: the "population explosion." Each industry probably has its own concern with what the impending increases in population will mean to it. But most nail-biting has been over how to feed, house, clothe, and employ the flood of people.

Eppert is thinking about a preliminary to supplying the necessities for people: keeping track of them—where they are, what they are, what they like, what they do, and so on. He doesn't mean keeping track of these things the way census takers or market researchers do. Rather, a manufacturer has to have records that tell him from past orders, for instance, what a retailer in a certain area is likely to need in the way of size, price, pattern, and quality of merchandise. And each sale involves half a dozen or so more records.

This sort of record has been kept for years. But the population explosion is going to increase vastly the number and complexity of such records that industry must keep. The population explosion has broken the dam, and industry is about to be flooded by paper.

• **To Higher Ground**—Businesses that deal primarily with paper—banks, insurance companies, and the like—are the first being hit by the flood and the first taking steps to get to higher ground. These steps usually involve automation.

Eppert thinks no company that handles large amounts of paper will be able to increase its processing of information—without hurting its profits—unless it automates. That's why he says: "If any corporation thinks they are going to be playing the same kind of game as in the '50s, they're dead wrong."

In the years ahead as never before, management will have to concern itself with information: collecting it, transmitting or interpreting it, storing it. Burroughs is an arms merchant for this revolution.

II. Learning by Doing

Burroughs used to be known as the Burroughs Adding Machine Co. A few years ago it changed to its present name; now its slogan is "new dimensions in electronics and data processing systems."

Recent technological developments in data processing include Burroughs' completely integrated system for banks—of a sort that has been possible to put together only since last year. To go along with this integration of technical equipment, a centralized marketing effort was logical, but there were other factors at work for centralized marketing inside Burroughs. To be blunt about it, product-line divisions at Burroughs were a mistake—but one that probably had to be experienced.

• **Postwar Growth**—Burroughs has increased both its product line and its sales many times over since the war. Some of the expansion has been through research that has paid off only in the past few years; a vitally important chunk has been through acquisitions.

One of the major acquisitions, in 1956, was ElectroData Corp. of Pasadena, Calif.—small and young, but possessor of some top talent and top hardware in electronic data processing. Since it was far from Burroughs' Detroit headquarters both geographically and in market experience and potential, ElectroData was given divisional status. It had charge of its own engineering, manufacturing, sales, and product planning.

• **Splitting Up**—To the late John Coleman, at the time Burroughs' president, and to Ray Eppert, his deputy, divisionalizing seemed to answer two vexing problems:

• How to keep a finger on Burroughs' growth when it had become too big to operate personally.

• How to broaden and train management.

So in the spring of 1957, they created the Burroughs Div. Basically, it was the old Burroughs Adding Machine Co.

Coleman and Eppert expected it would be difficult for top management, unaccustomed to a central staff-and-line operation, to keep its hands off the day-to-day affairs of the divisions, which were the responsibility of the vice-presidents and divisional general managers. In fact, the difficulty turned out to be something quite entirely different.

• **Inside Competition**—The central staff people apparently kept too far away. The ElectroData Div. and the Burroughs Div. became competitors—in product planning as well as selling. In one city, ElectroData salesmen might be in one building, Burroughs salesmen in a separate building blocks away—and they both might call on the same bank or utility company. The Burroughs salesmen would offer electromechanical devices for posting and billing; the ElectroData man would come in with a computer and ancillary equipment. The two would do some of the same operations, but neither was a complete data processing system.

Eppert wishes he had put his centralized marketing division into effect two years ago. The reason he didn't was that everyone concerned—Burroughs Div., ElectroData Div., and the customers—had to come around to the belief that handling information was a job for an integrated system, not for a collection of equipment, no matter how valuable individually. Says Eppert: "Things had to reach a point where the computer man realized that computers were just one part of data processing."

• **About Face**—So Burroughs now has an Equipment & Systems Marketing Div., headed by Vice-Pres. K. T. Bement, which sells products of both the old ElectroData and Burroughs Divs. It also keeps at least an eye on the sales of Burroughs' divisions in the ink and ledger paper businesses. In fact, if not in theory, Bement's division is in control of everything Burroughs sells except its scientific work for the military (27% of 1959's sales came from the military).

Bement's job is to move the goods. Other functions are handled by a central staff vice-president for product planning and a vice-president for manufacturing and engineering. They sit with Bement, Eppert, and a few others on the operations and finance committees, where goals are determined and conflicts resolved.

III. 'Decade of Deadlines'

Eppert and Burroughs, of course, are not unique in emphasizing marketing. The Burroughs reorganization three years ago was toward the General Motors staff-and-line arrangement. Now Burroughs again has followed the automobile industry in its organizational structure, although the resemblance is far more subtle.

At Chrysler, the car divisions now have authority only over selling, with central staff executives in charge of engineering, product planning, and manufacturing. Ford has gone almost as far, with the Lincoln-Mercury Div. now

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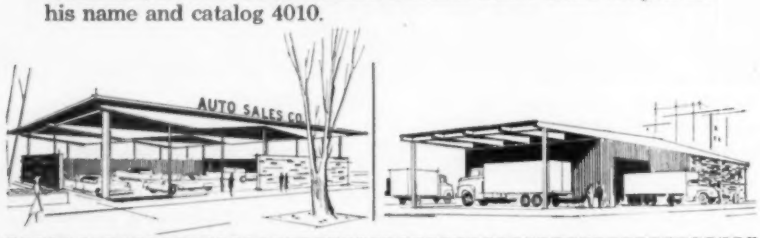


INLAND STEEL PRODUCTS COMPANY
Dept. E, 4041 West Burnham St., Milwaukee 1, Wisconsin

☐ Send me name of nearest Inland Steel Buildings dealer.
☐ Send me catalog 4010.

Name_____
Company_____
Address_____
City_____
County_____ State_____

MB-39

only a marketing organization and the Ford Div. in charge of all auto assembly and engineering as well as sales of Ford Div. cars. At both companies, responsibility for breaching new markets was assigned specific divisions.

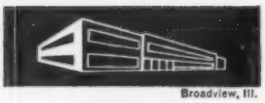
• **Rich Promise**—Burroughs people feel they, too, are entering new markets with their data processing concept. Figures for the size of the market in the office equipment industry are hard to come by. One estimate, however, runs like this: In 1958, the world market was $1.7-billion for computing, adding, calculator, and bookkeeping machines. Of that total, $753-million was for punch-card machines and $350-million for computers. Those two together, totaling $1.1-billion, were classed as data processing systems. The rest of the business was $292-million for accounting machines, $157-million for adding machines, and $129-million for calculators. By 1965, this same estimate runs, the data processing market alone will be $3.5-billion, $1-billion of the total in the U.S. and Canada.

In the entire business machines field, excluding typewriters, Burroughs probably is fourth. But it is outranked by only International Business Machines and Sperry Rand in data processing. And Burroughs may be out ahead with some systems. It is, for instance, equipping two banks with completely integrated check handling systems based on the magnetic ink character recognition (MICR) standards worked out by the industry and the American Bankers Assn.—the first such installations.

This banking system could be Exhibit A for Burroughs' Equipment & Systems Marketing Div. It involves equipment and products from the old Burroughs and ElectroData Divs., as well as the company's Graphic Systems Group, which makes ink and paper. Eppert claims Burroughs is the only company offering all components of an MICR integrated banking system—the coded documents, the electronic hardware, and the data processing techniques.

• **Ready to Move**—It is just such a coordinated marketing approach that makes Eppert believe his company is ready to exploit any opportunity. His new central marketing organization has been operating two and one-half months now and he is delighted with it. "There is no longer any question regarding the moves we made," he says. "Now we can pinpoint any problem and move in on it fast."

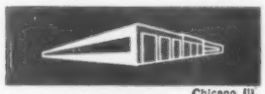
Eppert thinks that with industry undergoing very rapid change, any company that intends to survive must be able to change direction fast. "The 60s," he says, "will be a decade of deadlines." **END**


Broadview, Ill.

Cicero, Ill.

Broadview, Ill.

Chicago, Ill.


Chicago, Ill.

Broadview, Ill.

Danbury, Conn.

Los Angeles, Cal.

Janesville, Wis.

Janesville, Wis.

Burgess Hill, Sussex, England

Delavan, Wis.

Jefferson, Wis.

Elmira, Ontario, Canada

Whitstable, Kent, England

Delavan, Wis.

Amphenol-Borg

. . . a continuous program of growth and diversification

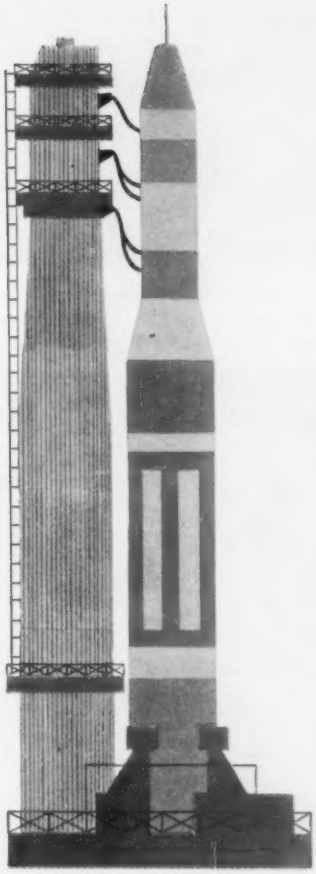
We're a major producer of electronic components that go into today's missiles, computers, aircraft and countless other equipments. In 1959, the rapidly expanding electronics field accounted for 72 per cent of our total volume.

Amphenol-Borg is a leading manufacturer of deep pile fabrics for industrial, garment and other uses—a field in which it was a pioneer. And still another division supplies electrically wound clocks for the major automobile and timing device manufacturers.

Today we operate 16 plants in this country and overseas, compared with only five plants just three years ago. Sales from all divisions last year reached a new high of $56,451,533 and net income was $2,926,605.

Most important, Amphenol-Borg is building solidly for the future through creative research and engineering. New products, new applications, improved designs, better methods—these are the continuing goals of scores of Amphenol-Borg engineers and scientists working in the fields of electronics, fabrics and timing devices.

Remember that name—Amphenol-Borg. You'll be hearing more of it in the future.



AMPHENOL ★ BORG ★

A principal supplier of Electronic Components serving the Aircraft, Missile, Telephone, Computer and Communications Industries and a major producer of Deep Pile Fabrics (Borgana) and Automobile Clocks

Copies of our 1959 Annual Report are available upon request.
Write to Public Relations Dept., 2813 South 25th Ave., Broadview, Illinois
Common stock listed on New York Stock Exchange

Amphenol-Borg ELECTRONICS CORPORATION

GENERAL OFFICES: BROADVIEW (CHICAGO SUBURB), ILLINOIS

OWNERS of Polaroid cameras (2-million have been sold in 11 years) are its best salesmen, according to the company.

INSTRUCTIONS at the owner meetings come from customer interchange as well as from the company's own experts.

FREE FILM is provided by Polaroid to teach owners of its cameras how to use new high-speed variety now on market.

Courting the Customer

Polaroid holds instruction meetings for owners of its Land camera. That way it hopes they will use more film, show off camera to friends.

Almost all manufacturers of consumer products these days will agree that "the customer is king." But too often they let him wear his crown just long enough to leave the store. Once the sale is made, he is an ex-customer. In a mass market, it's just too hard to keep track of all the millions who buy your product, even if you wanted to.

But Polaroid Corp., with 10,000 dealers handling its picture-in-a-minute Land cameras, has set about enthroning its customers permanently by means of an unusual post-sales program (pictures)—for good and profitable reasons.

• **Owner Gatherings**—Launched three years ago, the program consists of a series of owner meetings (Polaroid maintains a registered list of camera owners) in major cities around the country. Last weekend several thousand gathered in San Francisco and Denver to get instructions on the use of Polaroid cameras. Earlier this month similar owner meetings were held in Pittsburgh and Cleveland. About 3,000 turned up in Cleveland. The 1960 program winds up next month in Minneapolis and Boston.

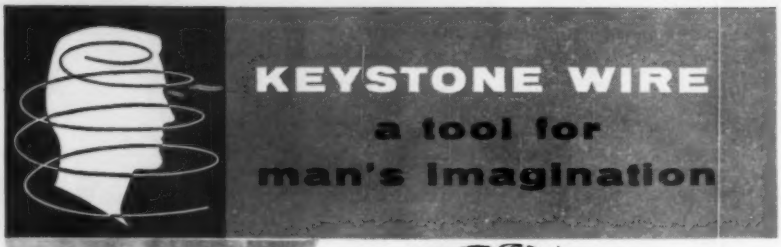
Polaroid promotes the meetings with direct, individual letters to Polaroid

POLAROID camera owners jam Pittsburgh ballroom for one of company's instruction sessions.

After the Sale Is Made

COLOR MOVIE shows owners the best way to use the picture-in-a-minute camera. Polaroid's aim: to boost camera, film sales.

EXPERTS from the company attend the instruction sessions, which are held in major cities. Cost of each meeting is $6,000.



the "blend" is just right!

Just the right blend makes superior coffee. The right blend of wire characteristics makes a superior spring, too! For the last 20 years, Gardner Wire Co., Chicago, Ill., has found that Keystone MB Spring Wire *has* the right blend to produce the widest selection of quality springs.

Typical of the host of Gardner springs made from Keystone Wire is the familiar cord protector spring specified for use on millions of home appliances such as coffee pots, electric irons, toasters, etc. Such a spring must be produced to precise specifications including complicated spacing of loops and tapers—it must give unfailing service—present an attractive appearance.

This is an example of how Keystone Wire becomes a useful tool for man's imagination. Through applying this type of creativity and Keystone Wire to your products, you, too, may realize savings, better design and greater profits. Your Keystone representative, a wire specialist, is ready to help you!

Keystone Steel & Wire Company, Peoria, Illinois

KEYSTONE

A few of the many springs Gardner Wire Co. makes from Keystone Spring Wire

owners within a 50-mile radius of the city. As many as 2,000 will turn up during the three-day period. In addition, newspaper ads and dealers promote the meetings.

Through these meetings, whose total cost runs between $5,000 and $6,000 in each city, Polaroid is convinced it is building a foundation of goodwill bound to pay off directly and indirectly.

• **The Rewards**—The direct benefit, besides simply keeping its current owners happy, is in teaching the amateur camera fans to make better pictures. Thus, says Sales Vice-Pres. Robert C. Casselman, "If our owners take good pictures, their cameras won't lie idle on the closet shelf and they will use more film." That's important, since film sales bulk large in the company's total income, which last year hit almost $90-million, a 38% gain over 1958, and this year are running 40% ahead of the first quarter of 1959.

Beyond that, although invitations to the meetings stress the fact that there is no sales pitch and that nothing can be purchased, the Polaroid owners are handed a list of dealers in their area where accessories can be bought. Each dealer puts up about $35 to help defray the expense, gets tags for his salesmen which read: "I am a Polaroid expert."

• **Customer Salesmen**—Just as important, perhaps, is the indirect payoff coming from the educational sessions. "Nothing," says sales chief Casselman, "sells a Polaroid camera better or faster than an owner who is showing superb pictures to his neighbors or relatives."

In the 11 years since Polaroid first marketed the camera invented by Edwin H. Land, its president, the company has sold some 2-million cameras, selling from $72.75 to $169.50. That leaves a big potential market for the company, especially since its basic patents give it a monopoly at least until 1970. An even greater potential is Polaroid's forthcoming color camera, which Land told stockholders this year should have a firm date fixed for its introduction by annual meeting time in 1961.

• **Continued Contact**—Though Polaroid spends $5-million to $6-million a year on advertising (with Garry Moore and Jack Paar as the main TV shows), it continues to keep a close personal relationship with owners. Its ownership list is kept up to date through the Minute Man, an instructional magazine (at $75,000 an issue) with a mailing of of 1-million two or three times a year. It gets about 100,000 requests for change of address every mailing.

In addition, each owner who sends to Cambridge (Mass.) headquarters for duplicates or enlargements receives an analysis of his camera techniques should the prints indicate a misuse of the camera. **END**

See why Pittsburgh Corning Products make the things you build cost less, last longer, look better

Central Park School, Dundas, Ontario, Canada. Architect: Allen & MacIver, Hamilton, Ontario.

example: PC Glass Blocks to brighten the world of learning

The learning environment gets a new lift from disciplined design with PC Glass Blocks. Here is the one material able to combine the desirable characteristics of window and wall at once. Precise direction and diffusion of transmitted natural light. All the insulation value of a 12″ concrete block. And the brilliant sparkle of 12 ceramic face colors for color accents—now available on architect's specifications. Like the church described on a following page, this school wall dramatizes the increasing authority over design which Pittsburgh Corning's growing line of PC Glass Blocks puts at the disposal of all who design and build.

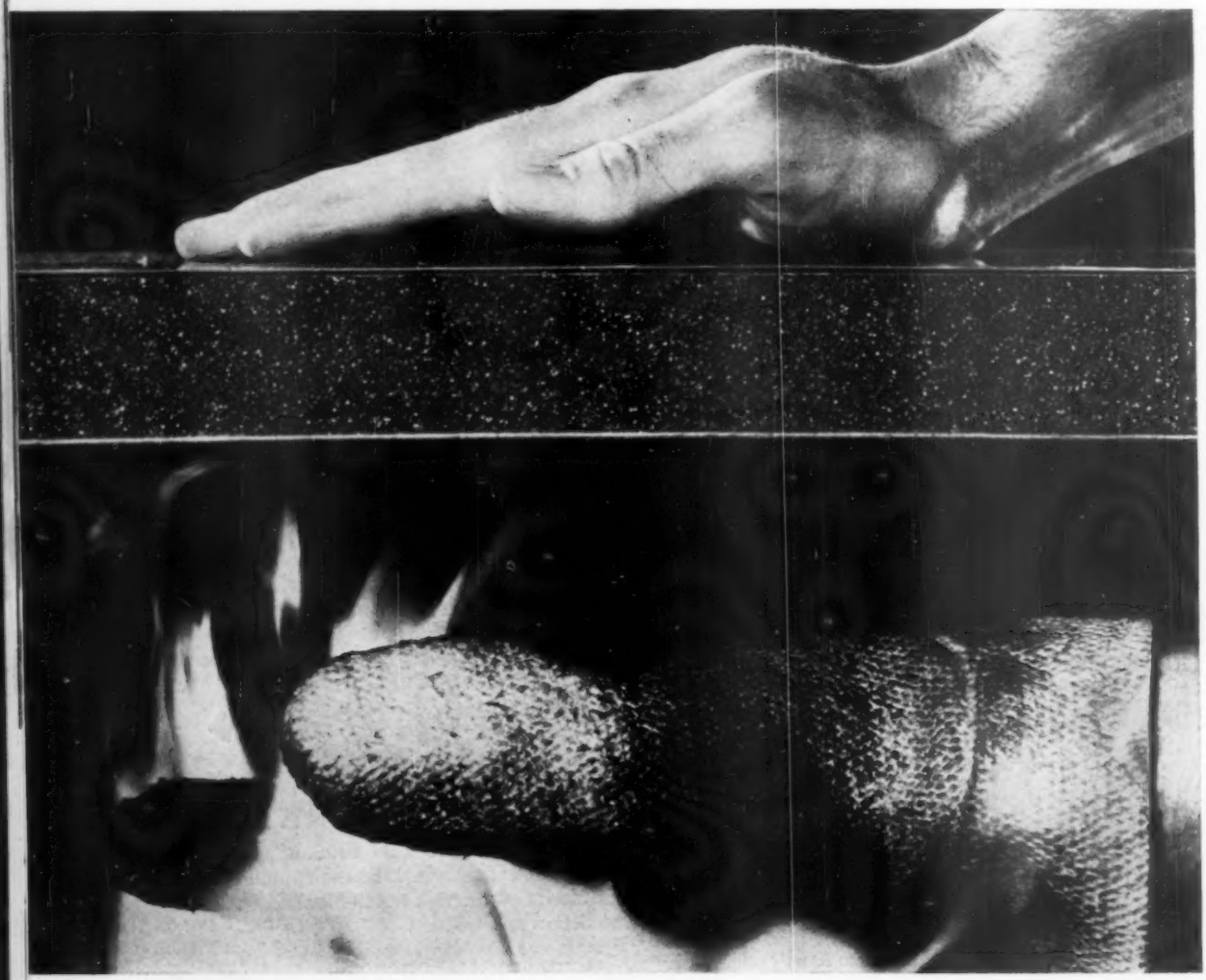
Take advantage of the coupon on the fourth page of this advertisement.

PITTSBURGH PC CORNING

example: FOAMGLAS® insulation to keep heat in its place for good

Most roof insulations do an adequate job of controlling heat flow when they're first installed. But only FOAMGLAS roof insulation maintains its initial permanence level for the life of the building. The reason is simple. FOAMGLAS is the only thermal insulation composed entirely of sealed glass cells. Result: moisture can never penetrate FOAMGLAS to form a heat leak as it does in other materials. Insulating performance never varies. This is one of the many excellent reasons for a FOAMGLAS specification on a roof . . . as well as walls or piping—wherever heat flow must be controlled. Page 4 of this advertisement details more of the FOAMGLAS insulation story.

Take advantage of the coupon on the fourth page of this advertisement.



PITTSBURGH CORNING

example: PC Glass Blocks to add color with dignity in a reverent place

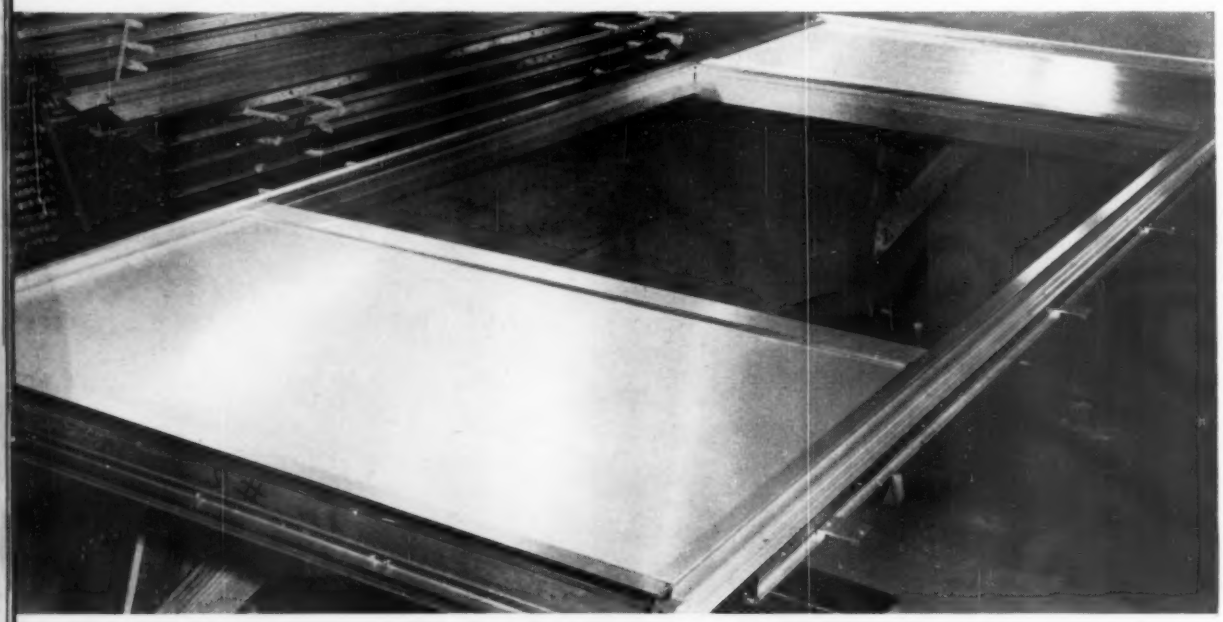
Brilliant color in a disciplined design adds warmth, welcome and restrained identity to the church you see here. The continued evolution of glass blocks has made such interpretations possible . . . at an initial cost far lower than possible with other materials. PC's Color Glass Blocks have provided a whole spectrum of professionally selected shades for the architect. And very soon PC will announce a dramatic new use of architectural light and shade. These are the vital elements of design authority which have become the continuous thread of design oriented PC Glass Block development by Pittsburgh Corning. And see how good design can be added to important functions as in the classroom shown on page 1 of this advertisement.

Take advantage of the coupon on the fourth page of this advertisement.

Grace Evangelical Lutheran Church, Peoria, Illinois. Architect: Richard Hapke, Peoria, Illinois. Artist: William Donaldson, Edelstein, Illinois

example: FOAMGLAS® core insulation to smooth the skin of this curtain wall panel

Permanent skin flatness has assumed increasing importance in curtain wall panel design. And you'll seldom see a panel with skin so flat, true and smooth—permanently—as you see on this page. Pittsburgh Corning's FOAMGLAS core insulation makes the difference. The unique strength and rigidity of this insulation forms a firm support for the many types of curtain wall skins. Since FOAMGLAS is dimensionally stable, it can't soften, slump or sag . . . prevents dimpling and oil canning after installation. Add this to the lasting insulating value described on an earlier page and the soundness of a FOAMGLAS specification becomes increasingly clear. (To be continued)



PITTSBURGH CORNING CORPORATION
Dept. F-50, One Gateway Center, Pittsburgh 22, Pa.
Please send me descriptive literature on the building products checked below.

- ☐ FOAMGLAS Roof Insulation
- ☐ FOAMGLAS Low Temperature Insulation
- ☐ FOAMGLAS Insulation for Piping & Eqmt.
- ☐ FOAMGLAS STAY-DRY Pipe Insulation
- ☐ FOAMGLAS Insulation for Curtain Walls
- ☐ PC GLASS BLOCKS
- ☐ The PC 4 x 12 Block
- ☐ PC Color Glass Blocks
- ☐ FOAMSIL®, the Acid-proof Insulating Refractory

Name_____
Company_____ Title_____
Address_____
City_____ Zone____ State_____

PITTSBURGH PC CORNING

In Marketing

• • •

Wools and Tufteds Are the Stars In Carpet Industry's Record Year

A record year for the carpet and rug industry, a tapering off in the spectacular rate of growth of tufted (as compared to woven) carpets and a resurgence of wool: That's the way the Carpet Institute sums up the highlights of the business for 1959.

Total manufacturers' shipments came to 154.5-million sq. yd., up from 1958's 130.9-million.

Dollar shipments also hit a record, reaching $670.1-million. Net income after taxes of publicly owned companies showed a healthy jump, from 3.9% of sales in 1958 to 6.52% in 1959.

Tufted carpet continued to grow, but its rate eased slightly. Last year, tufted accounted for 59.5% of broadloom carpet shipments, against 58.1% in 1958.

Wool staged a good comeback last year. It accounted for 62% of total fiber consumption of broadloom, against 51% in 1958. The acrylics and nylons picked up a bit. The rayons and acetates and the cottons, on the other hand, took a smaller piece of the whole pie last year.

Imports continued to worry the industry (BW—Nov. 7'59,p47). Imports of all machine-made carpet reached 12% of domestic shipments, compared with 9% in 1958.

• • •

Florida Slaps 30-Day Suspension On Big Citrus Shipper for Adulteration

Tropicana Products, Inc., of Bradonton-Cocoa, Fla., will have to shut down all its Florida operations for 30 days starting June 10. The suspension order was issued this week by Lee Thompson, state agricultural commissioner.

On Apr. 4, U.S. Agriculture Dept. inspectors caught Tropicana people putting sugar syrup in the bulk tanks of its refrigeration ship at Cocoa (Cape Canaveral) bound for New York where the juice is put in cartons for retail distribution. This adulteration is against Florida's 35-year-old citrus code, which prohibits the addition of anything to fresh juice and specifically makes it illegal to add sugar to frozen concentrate or fresh juice.

Anthony J. Rossi, Tropicana president, admitted he had ordered a mixture of sugar and water, said no other company official knew about it, and attributed his action to a "moment of weakness and temptation." The economics of adding cane or beet sugar are simply this: Processors buy oranges on the basis of pounds solid (principally orange sugar). In a 90-lb. box of oranges, selling for about $2.40, there are about 6 lb. of sugar solids. But cane or beet sugar sells for about 8¾¢ a pound. So, adding ordinary sugar (which can't be detected by analysis and can only be caught by on-the-spot inspectors) can save—or earn—a lot of money for a company.

Florida officials castigated Tropicana, which is probably the biggest fresh juice distributor, with 40%-50% of the market. **Commissioner Thompson said the penalty of a 30-day suspension was "rather severe" but that the quality of Florida products "must be upheld."**

A Tropicana spokesman said its New York plant would still be able to serve its customers, although the company can't ship any juice from Florida.

• • •

New FCC Chairman Sets Up Bureau To Police Programing Pledges

This week the Federal Communications Commission fulfilled predictions that it would switch from a passive to an active role in regulating the broadcasting industry. Its new chairman, Frederick W. Ford, created a 25-man bureau to:

- Monitor stations to check whether they were living up to programing promises made when applying for a license.
- To make on-the-spot investigations of complaints.

Two years ago the House committee investigating TV recommended such a program. But under the previous chairman, John Doerfer, the FCC shied away from asserting its authority over broadcasting. **Ford has asked Congress for $300,000 to set up the program, but says he will proceed with it even it he doesn't get the funds.**

The FCC receives 100-150 complaints about broadcasting per week. But until now it has had no way to handle them except by formal hearings on the most serious complaints.

Some 1,700 station licenses come up for renewal each year—at which time FCC is supposed to check a station's performance against the promises it made about the programing it would provide. In the past this review has been limited to asking stations in a general way whether they have been allocating enough time to public interest programs. **No station has ever lost its license because of programing performance.**

• • •

Growth of Food Chains Stressed In Long-Awaited FTC Report

The long-awaited report by the Federal Trade Commission on the growing concentration in the retail food business may not start a rash of new antitrust cases. **Several are already in progress—against National Tea and Kroger on acquisitions, and Giant Food and Grand Union on discriminatory allowances.**

But the report does underscore the chains' growth—from 29% of food sales to 44% in the 1948-58 period. Retailer-owned cooperatives increased their share from 8% to 19%, while unaffiliated stores dropped from 58% to 25%.

The report does point to retail directorates that interlock with directorates of some of their suppliers. It does not comment on the legality or illegality of such interlocks, however.

More importantly, the report sets the stage for a new FTC study on possible abuses of power in purchasing or marketing. This is just now getting started.

Santa kept on delivering Milton Bradley games because "Heller stepped in when we needed finances most"

Long a leader in games and school supplies, Milton Bradley Corporation, Springfield, Mass., faced a dilemma. An unexpected need for heavy purchase of raw materials in a rising market had collided head-on with the need to pay up notes.

"To preserve the company and at least provide means to pay everybody eventually, we ordered the materials," relates James J. Shea, Sr., Milton Bradley's President. "Then Heller, called into the emergency by our banks, developed a plan which provided us with the financial lifeblood to stay in business."

Many are the uses of money in business and many are the individual Heller plans for using it. But always the ingredients of the basic formula are the same: Good businessmen, and creative financing —each useless without the other, but extremely potent together. If your annual sales are upward of a quarter million, our booket explaining Heller services may suggest how to strengthen your position and increase your profits. For your copy, write Dept. BW5 today. There's no obligation whatever.

WALTER E. HELLER & COMPANY

WORKING FUNDS FOR INDUSTRY

One billion dollars annually for industry

105 West Adams Street, Chicago 90
9141 East Jefferson Avenue, Detroit 14
342 Madison Avenue, New York 17
Fulton National Bank Building, Atlanta 3
Walter E. Heller & Co. of California
849 S. Broadway, Los Angeles 14

Sixties Off to a Slow Soar

First quarter of decade only narrowly tops income of recession-hurt period.

The so-called Soaring Sixties barely got off the launching pad during the first quarter of the new decade. According to BUSINESS WEEK's Measure of Personal Income, the first three months scored only 6.5% over the comparable period last year, when the U.S. was emerging from the recession.

Incomes for March were 6.1% ahead of year-ago, but only 0.6% higher than in February. The blame falls mostly on bad weather during the first half of March. Unusually low temperatures and heavy snowfalls slowed normal seasonal developments, disrupted transportation in large areas, and curtailed outdoor work.

Hawaii, far removed from the eccentricities of winter weather, led all other states in year-to-year gains with an impressive 15.2% improvement over March, 1959. With the exception of agriculture, which reflected the doldrums on the mainland, all major sectors of Hawaii's economy were booming. There were better than 11,000 more people at work than at the same time last year; almost 8,000 of the additional jobs centered in nonmanufacturing activities—retail trade, services, construction, transportation. Another classification, labeled domestics and self-employed, registered a 2,700 increase. Tourism is the prime mover behind the island's spectacular growth. Last year, 287,000 visitors flocked to its shores to spend $172-million. This year, hotels are operating at capacity or near-capacity, and advance reservations indicate an acute shortage of hotel space during the summer peak season—despite the furious pace of new hotel construction.

Back on the mainland, 20 states managed to better the national average. Massachusetts led for the first time with an 11.7% gain over last year, thanks to fatter payrolls in electrical machinery, trade, and services.

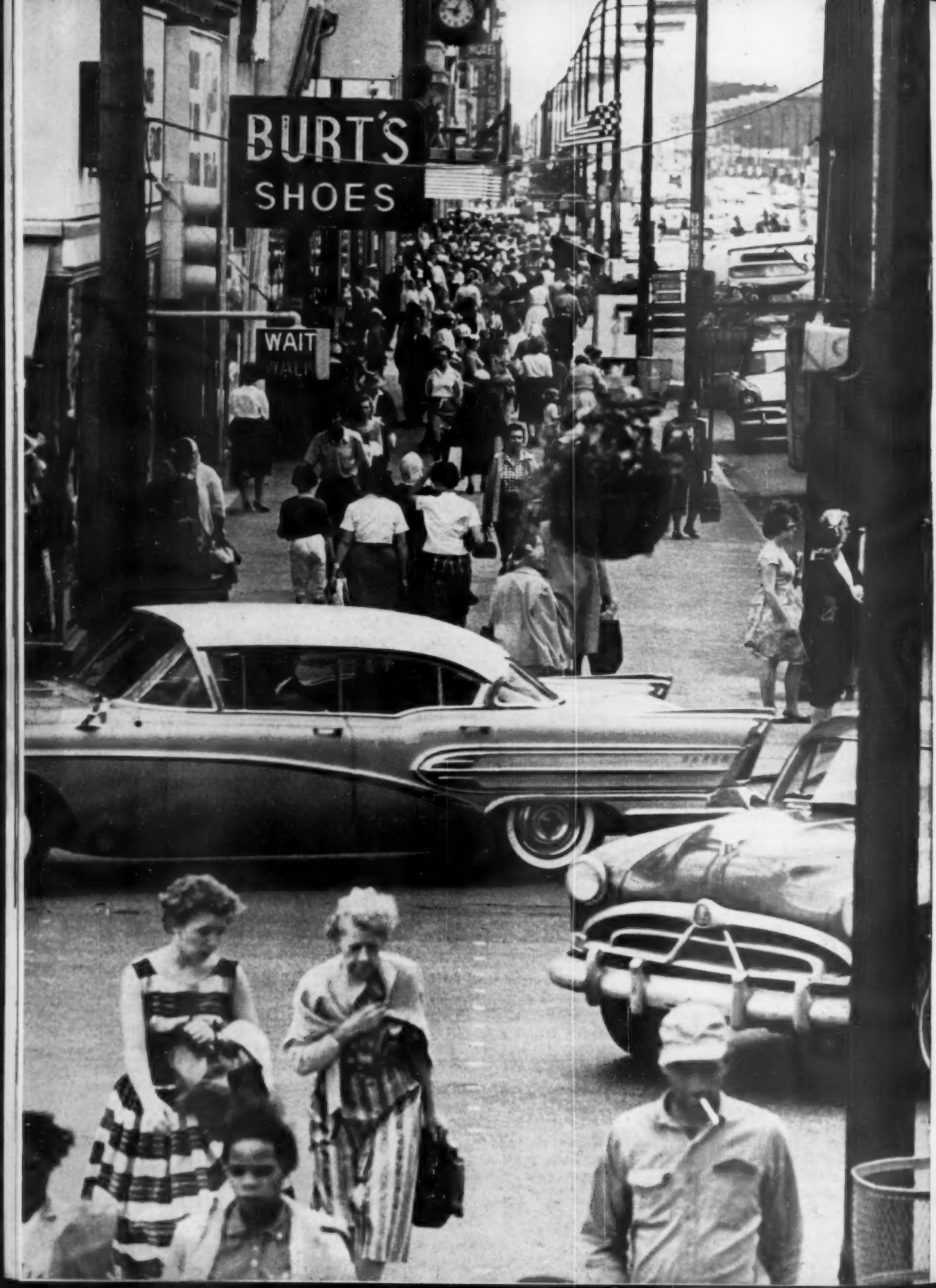
March was rough in the farm states where cold, wet weather delayed spring plantings and added to farmers' problems, which were already considerable as a result of the continuing cost-price squeeze that has gripped them for more than a year. Personal incomes dropped below last year in seven states, with South Dakota (−6.2%) the biggest loser.

Incomes turned down in 14 states from February to March, but this was due to contra-seasonal factors rather than to any significant shift in the economy.

MEASURE OF PERSONAL INCOME

STATE	1953-55 AVERAGE	Millions of Dollars (Seasonally Adjusted) MARCH 1959	FEBRUARY 1960	MARCH 1960	% CHANGE VS. YEAR AGO
Alabama	$286.4	$397.3	$415.2	$414.4	+ 4.3%
Alaska	41.9	58.2	63.9	63.4	+ 8.9
Arizona	126.9	200.9	211.4	222.0	+ 10.5
Arkansas	153.5	197.0	197.6	200.5	+ 1.8
California	2,341.7	3,296.0	3,594.3	3,632.6	+ 10.2
Colorado	217.2	313.4	339.7	338.7	+ 8.1
Connecticut	440.7	584.7	611.2	621.2	+ 6.2
Delaware	78.6	111.7	122.5	123.1	+ 10.2
District of Columbia	158.2	189.7	193.5	190.1	+ 0.2
Florida	456.8	730.1	823.2	804.7	+ 10.2
Georgia	383.2	506.4	542.0	547.1	+ 8.0
Hawaii	76.0	110.9	124.2	127.8	+ 15.2
Idaho	74.5	102.5	102.7	106.5	+ 3.9
Illinois	1,677.5	2,186.9	2,257.7	2,255.2	+ 3.1
Indiana	663.5	849.6	889.5	891.2	+ 4.9
Iowa	357.3	471.7	469.8	472.6	+ 0.2
Kansas	281.8	381.0	382.3	373.0	− 2.1
Kentucky	307.1	377.5	373.9	375.4	− 0.6
Louisiana	318.3	435.1	437.5	452.1	+ 3.9
Maine	112.8	135.1	146.2	146.4	+ 8.3
Maryland	432.3	586.6	613.1	616.7	+ 5.1
Massachusetts	799.8	1,037.0	1,086.7	1,157.9	+ 11.7
Michigan	1,234.1	1,521.8	1,654.8	1,661.4	+ 9.2
Minnesota	434.8	574.6	593.0	600.0	+ 4.4
Mississippi	160.9	208.1	207.5	212.7	+ 2.2
Missouri	600.9	766.8	807.3	805.4	+ 5.0
Montana	92.3	118.2	111.7	113.8	− 3.7
Nebraska	182.5	243.0	254.5	247.6	+ 1.9
Nevada	43.1	63.8	68.2	69.6	+ 9.1
New Hampshire	75.2	98.0	102.5	103.5	+ 5.6
New Jersey	982.9	1,269.0	1,354.3	1,366.1	+ 7.7
New Mexico	91.8	135.5	140.1	144.2	+ 6.4
New York	2,887.9	3,588.8	3,844.1	3,853.5	+ 7.4
North Carolina	429.0	574.4	602.8	593.6	+ 3.3
North Dakota	67.4	96.9	87.0	92.1	− 5.0
Ohio	1,476.3	1,862.2	2,028.6	2,034.6	+ 9.3
Oklahoma	268.5	346.4	354.1	355.4	+ 2.6
Oregon	249.8	326.9	342.3	343.6	+ 5.1
Pennsylvania	1,678.6	2,058.3	2,174.7	2,223.8	+ 8.0
Rhode Island	129.9	153.0	164.8	167.8	+ 9.7
South Carolina	210.0	267.7	282.7	283.6	+ 5.9
South Dakota	73.7	101.5	92.8	95.2	− 6.2
Tennessee	345.9	459.7	459.5	459.5	− 0.04
Texas	1,132.9	1,480.0	1,522.7	1,515.6	+ 2.4
Utah	98.1	141.1	149.7	152.2	+ 7.9
Vermont	45.9	58.5	60.5	61.2	+ 4.6
Virginia	383.3	567.2	586.0	586.3	+ 3.4
Washington	418.0	531.9	550.6	547.5	+ 2.9
West Virginia	209.7	266.4	266.8	267.8	+ 0.5
Wisconsin	528.2	671.5	698.9	657.4	− 2.1
Wyoming	45.9	57.9	58.0	59.1	+ 2.1
NATION	**$24,363.5**	**$31,868.4**	**$33,618.6**	**$33,806.7**	**+ 6.1%**

March, 1960, preliminary; February, 1960, and March, 1959, revised.


BURT'S
SHOES
WAIT

FARMLAND, still important, shrinks as many farmers head for cities, and subdivisions press outward, booming nearby land values.

BIGGEST EMPLOYERS are metals industries (especially steel) and transportation equipment—though Studebaker-Packard (above) now has the state's only auto assembly line.

SMALL TOWNS are typical—like Columbus, with its community center youth dance.

Indiana—Soft Spots but No Gloom

Spring this year brought to Indiana all the outward signs of prosperity.

Farmers in Lake County, waiting long and impatiently for the black soil to dry and warm up sufficiently, attached lights to their tractors and almost tore into their fields to plow and get ready to plant corn. In rolling Brown County, storekeepers stocked up on souvenirs for the tourist trade. At the Speedway outside Indianapolis, racing drivers ripped around the oval at 140 mph or better to qualify for the Memorial Day race classic.

• **Under the Surface**—But these signs of spring-as-usual concealed some slight disturbances that businessmen detected at their sensitive cash registers.

HIGH WAGE level in Indiana means spending—this is Indianapolis' Washington St.—but right now retailers aren't too happy.

"May has not been good," said a large Indianapolis retailer. "Saturday's receipts were 60% cash," said Pres. William Schear of the Schear store in Evansville. "More charges will be a sign of confidence."

It was not, the Indianapolis retailer added, alarming. But there was not the evidence of a boom with a full head of steam. In Gary, where U. S. Steel's 20,000-man mill overshadows the economy, talk spread that some men were put on a four-day week.

I. Barometer

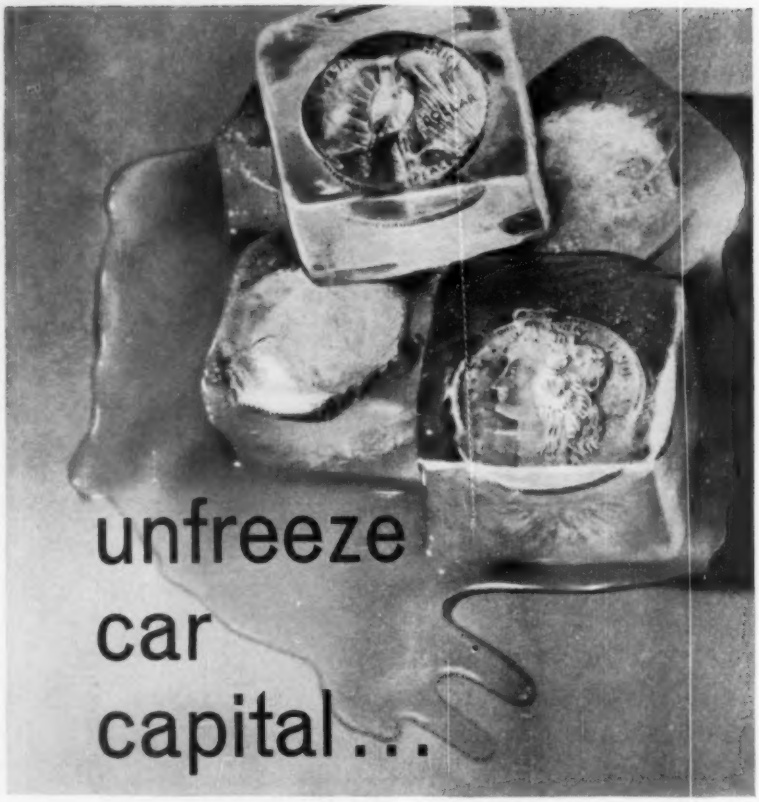
What was happening, at least according to the experts, was a slight softening in the economy—because high operating rates in the wake of the steel strike could not last forever.

Because Indiana's hardgoods industries typify the nation's—and Indiana's personal income moves uncannily up and down with that of the U. S. as a whole—the disturbing elements in the state could well suggest what is happening in much of the nation now.

• **Accent on Durables**—Only 38th among the states in size, Indiana ranks 10th in population, eighth in manufacturing employment. Farming is still important, but long ago yielded top place to manufacturing.

As a result of its undeniable advantages for durable goods manufacturers, Indiana now has three-fourths of its manufacturing employees in durables. Because the weight of metals makes freight charges an important cost, and because metal-oriented plants use much unskilled labor, Indiana's location proved excellent.

It abounds in highways, railroads, and



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BW-328

water routes to reach the nation's markets. Separated from the South only by the Ohio, it sits astride the migration routes of Southern workers going north for jobs. Ever since Aluminum Co. of America started building a smelter outside Evansville, for example, more than 5,000 have applied—even though it needs only 300 to start.

Indiana's biggest recent push came in 1953, when the boom in its defense and civilian industries coincided. Manufacturing employment has not regained those peaks. While nonmanufacturing employment has since been setting new highs, its growth has been slower.

II. Diversified

If the concentration of hardgoods and large companies is striking, so is the lack of any one dominant industry or company. The steel strike showed Indiana's ability to absorb a huge drop in output of metals manufacturing.

• **Steel Concentration**—That Indiana's personal income grew faster than the nation's from 1958 to 1959 is due in part to high steel output before and after the strike. More significantly, Indiana employment held up well with 50,000 men off the job for 116 days.

Steel's gyrations hit hard, of course, in Lake County, where U.S. Steel employs 30,000 in Gary, Inland Steel 20,000 in East Chicago. Steel will become even more concentrated. Inland and U.S. Steel are both expanding. National Steel's subsidiary, Midwest Steel Corp., is coming into Porter County.

• **Spread**—Transportation equipment, in contrast, is spread across the state, and diversified among passenger cars, motor trucks, and defense.

General Motors Corp., with more than 44,000 workers, is easily Indiana's largest employer. But its six diversified divisions in the state manufacture in as many cities. Up to last year, only two companies actually assembled cars in the state—Chrysler Corp. and Studebaker-Packard Corp. Then Chrysler closed its Evansville plants—but left behind components plants and suppliers.

• **Evansville's Troubles**—Chrysler's exit left a hole in Evansville employment. In the last year of its operations there, Chrysler employed more than 3,000 men. Absorbing such a loss of jobs would have been easier if Evansville had not already been reeling from dissolution of the Servel manufacturing complex and the closing of International Harvester Co.'s refrigeration plant.

At one time Servel employed 14,000 there. Though it sold some plants (air conditioning to Arkla, compressors to Bendix-Westinghouse, gas refrigerators to Whirlpool), only 2,000 are at work in them now. Whirlpool also bought the Harvester plant, is now the largest employer, with 5,500. END

NEW FACE IN THE SMITH FAMILY

PACKAGE DESIGNED BY ELMO ANDERSON ASSOCIATES

Behind the respected name of Smith Brothers lies alert marketing judgment. To gain a competitive edge, this company—like so many others—turned to Plax for colorful, unbreakable containers of plastic. • Result: a truly consumer-oriented package—graceful, functional, pleasant to the touch. In addition, the medicinal qualities of the product it holds are protected by a lining available only in Plax bottles. This is why so many leading manufacturers rely on Plax for dramatic packaging that moves merchandise. • To serve a growing demand, we provide the largest manufacturing capacity in the industry. This, together with twenty-five years of experience, makes Plax the leader in its field. • Let us demonstrate how low-cost plastic packaging can build your sales and profits.

Plax Corporation, Hartford, Conn. • In Canada, Plax Canada Ltd., Toronto

PLAX 25TH anniversary

PLAX GIVES A PACKAGE A PLUS

RECORDAK ANNOUNCES

fastest, most versatile microfilmer ever built!

the new RELIANT 500

Only half the size you'd expect a large-volume microfilmer to be! Yet the trim new RECORDAK RELIANT *500* Microfilmer lets you handle *more* work, *more* efficiently than ever before.

NEW PERFORMANCE

The more you know about microfilming, the more you'll marvel at the way the RELIANT *500* does its job. For example, in one minute it photographs the fronts and backs of 500 checks . . . indexes the film . . . and endorses or cancels each item when optional RECORDAK endorser is used.

Operation is completely automatic, and noise-free aside from the hushed "tat, tat" of microfilmed checks or other items pouring in sequence into the receiving tray.

Precision controls are constantly on guard to prevent "double-feeding" of documents . . . to guide them safely through the microfilmer . . . to "supervise" over-all machine performance and make your operator's job unbelievably easy and trouble-free.

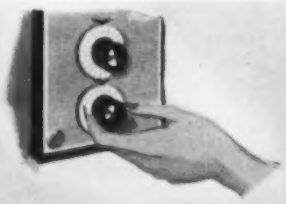
NEW CONVENIENCE

Operator simply slides out film unit to load film, or to substitute a film unit with a different reduction ratio (40 to 1, 32 to 1, 24 to 1). This "instant changeover" also makes it practical for various departments to microfilm with their own film units—unitizing their work, and reducing need for extra microfilmers.

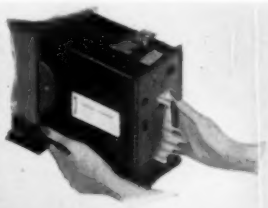
Many other conveniences—for example, with the flick of a lever you can switch from duplex (fronts and backs) to duo recording (fronts only) at the higher reduction ratios.

NEW STYLING

The RECORDAK RELIANT *500* Microfilmer's trim good looks complement today's modern offices—reflect, *in still another way*, the experience gained by RECORDAK in thirty-three years of microfilming research and development. *See the new Reliant 500 soon!*



Kodamatic indexing controls give you up to 100 different code settings for rapid reference to film image.



Film units can be interchanged in seconds to handle work of various departments more efficiently.

Recordak endorser (low-cost accessory) lets you cancel or endorse items while microfilming them.

Microfilmer

RECORDAK®
(Subsidiary of Eastman Kodak Company)
originator of modern microfilming
—now in its 33rd year

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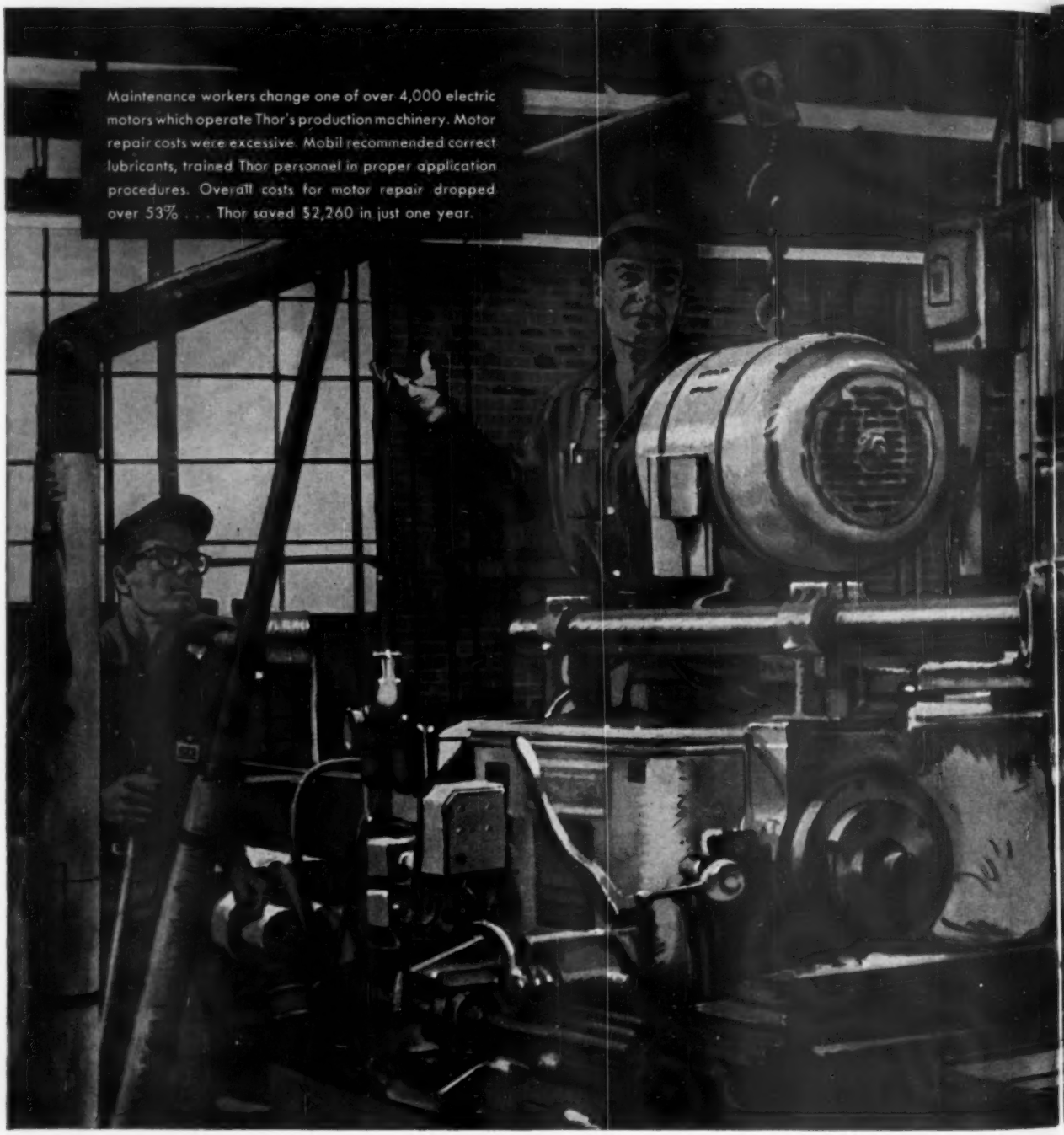
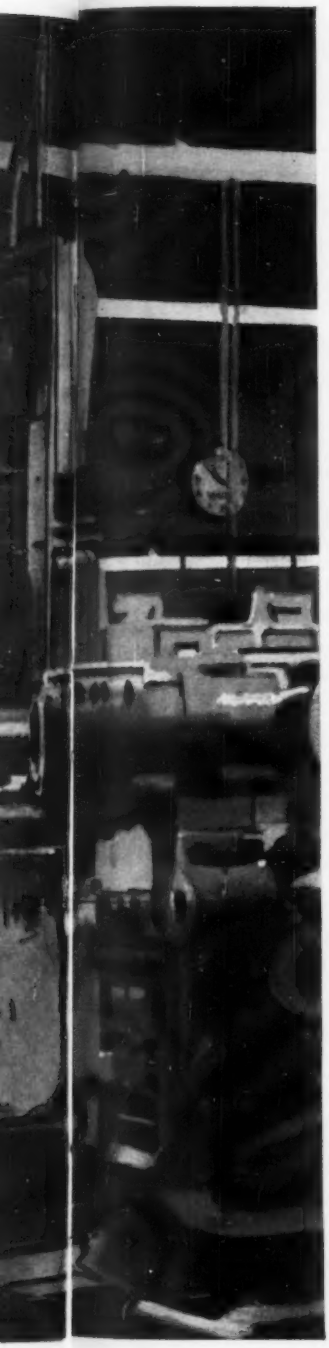
Thor relies on Mobil F


Maintenance workers change one of over 4,000 electric motors which operate Thor's production machinery. Motor repair costs were excessive. Mobil recommended correct lubricants, trained Thor personnel in proper application procedures. Overall costs for motor repair dropped over 53% . . . Thor saved $2,260 in just one year.

Mobil Correct

il Program-saves $15,403!



Thor Power Tool Company boosts production and efficiency, cuts maintenance costs and repair time—with a Mobil Program

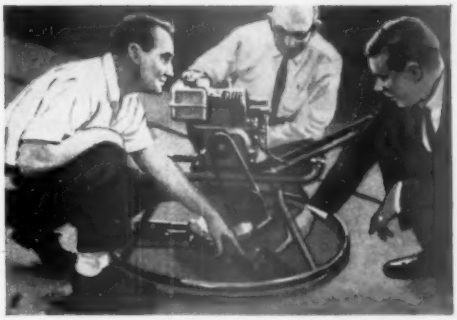
Modern production methods and maintenance techniques helped Thor Power Tool become one of the world's largest manufacturers of industrial equipment operated by air, electricity and gasoline. To keep maintenance efficient, Thor relies on a Mobil Program of Correct Lubrication. Mobil has helped Thor in these ways:

- Establishing exact lubrication recommendations for all plant equipment.
- Training personnel in proper maintenance methods.
- Installing improved application procedures.
- Reducing costly production problems.
- Contributing to Thor product design improvement with regard to lubrication.

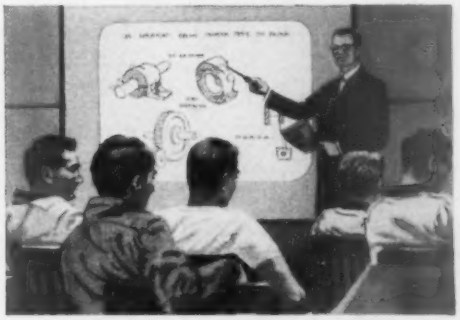
As a direct result of the Mobil program, Thor has increased production efficiency . . . cut maintenance costs . . . saved $15,403 in just one year.

For information on how the Mobil Program can help you, call your Mobil representative or write Mobil Oil Co., 150 East 42nd St., N.Y. 17, N.Y.

MOBIL OIL COMPANY
150 East 42nd Street, New York 17, N.Y.

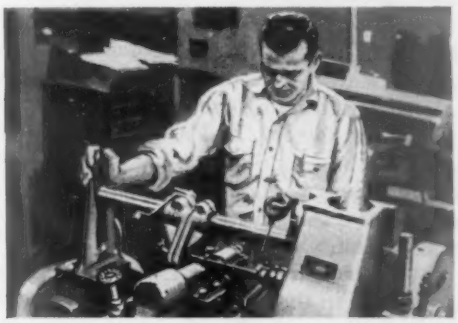


Mobil engineering service contributes to product design improvement. When Thor's Power Trowel developed an annoying lubrication "bug," obstructing featured "finger-tip blade adjustment," Mobil's suggestion and superior grease eliminated problem.



Lubrication clinics conducted by Mobil engineers and a simplified system of product application increased maintenance efficiency materially, permitting reassignment of personnel. Thor saved $4,656 in one year alone.

Slip-stick problems on 3 of Thor's grinders caused downtime and labor loss of four hours a day. Mobil representatives studied the situation . . . recommended a lubricant that solved the problem. Thor saved $1,428 within six months.

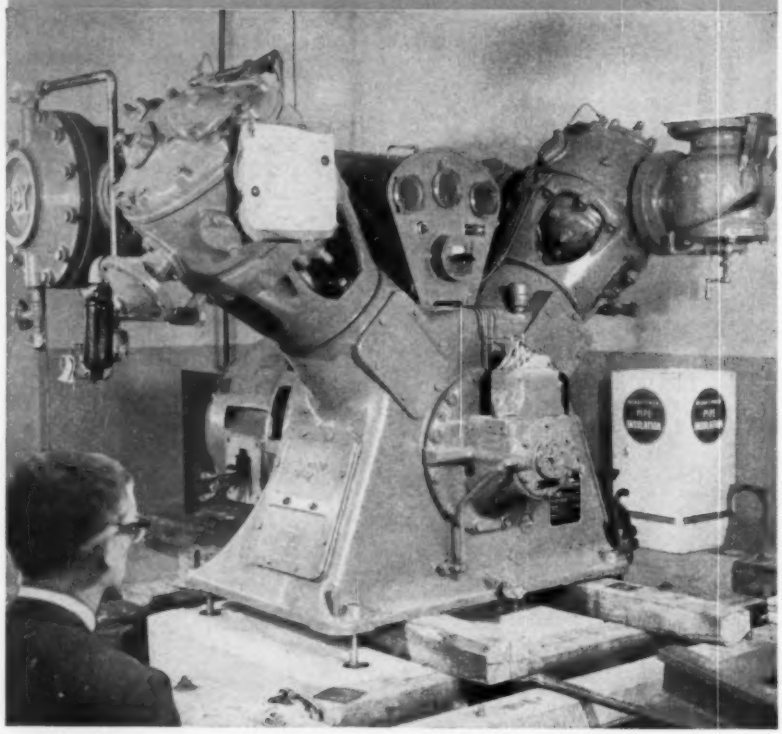


On Thor's gear-cutting machines, hobs required frequent sharpening, causing high replacement rate. Mobil recommended cutting oil that prolonged hob life, reduced labor and sharpening costs. Savings to Thor: $7,059 per year.

t Lubrication

Now I See What They Mean When They Say,

"JOY'S PACKAGE DESIGN GIVES LOWEST INSTALLED COST FOR COMPRESSORS"



Installing a Joy V-Vertical Compressor is simply a matter of positioning the machine on its rectangular concrete pad, tightening the four nuts, and connecting the piping. The compressor is completely assembled at the factory, and shipped to the erection site as a "package." Expensive and time-consuming shaft alignment necessary with competitive machines is eliminated, and the cost of foundation form work is reduced to a fraction. These two factors give Joy compressors the lowest *installed cost.*

Joy heavy-duty compressors offer many engineering "plus values" in addition to the installation advantages. These compressors are available in both standard and oil-free constructions up to 1250 hp. Joy also can supply you with Vertical and Semi-Radial positive displacement compressors in a wide range of sizes; Dynamic Compressors up to 15,000 hp. Whatever your air or gas compression problem may be, Joy can provide you with an economical solution. For complete information on Joy Compressors, write for Bulletin 1148-56.

AIR MOVING EQUIPMENT FOR ALL INDUSTRY

JOY

Joy Manufacturing Company
Oliver Building, Pittsburgh 22, Pa.
In Canada: Joy Manufacturing Company (Canada) Limited, Galt, Ontario

bought the Harvester plant, is now the largest employer, with 5,500.

Unemployment in the Evansville area is still over 8% of the labor force—a labor force that has shrunk as migrants went home again—but there is a feeling that the bottom has been reached and the outlook is up.

• **Other Problems**—South Bend went into a decline when Studebaker hit a low of 7,000 men, on a three-day week, in 1957-58. Introduction of the Lark in late 1958 brought Studebaker back to 10,000, but recently its share of the market has dropped and it has had to cut back again. South Bend's other large employer, Bendix Corp., has also had to cut back, in both auto and aircraft component lines.

Uncertainty also prevails to an extent in Indianapolis, where GM's Allison plant makes turboprop engines for the military as well as for the commercial Electra. But Allison, the city's largest employer with 12,500, has been able to keep employment fairly even because of its other lines, including transmission systems for the booming truck business. Truck employment has held up nicely at Harvester's engine plant in Indianapolis and assembly plant in Fort Wayne, and Studebaker has had an occasional six-day week on its truck lines.

What keeps the state as a whole on a fairly even keel is not only the diversification of its industries but their spread across the state. There's not a county among the 92 that doesn't have at least one plant.

III. Farms and Factories

This spread of industry throughout Indiana creates closer links between factory and farm than in many states, and helps to mitigate the downturns that are typical of durables even when a state's durable goods industries are as amply diversified as Indiana's. This factory-farm link raises some questions for the future, however.

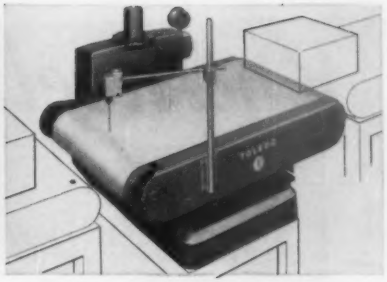
You see the link in the smaller communities that are every bit as symbolic of Indiana as Gary, Indianapolis, South Bend, and Evansville with their many industrial plants. Take Columbus, for example, with its prospering Cummins Engine Co. and Arvin Industries. Cummins estimates that only half its 5,000 workers live in Columbus itself; many live on farms in the vicinity. They may have operated or worked on farms before coming to Cummins. Or they may have used their wages at Cummins to buy a farm, better able to afford farming as a way of life without having to depend on it for a living.

When times turn down, these people have the farm to fall back on, and this gives stability to the area.

• **Commercial Farming**—Of course,

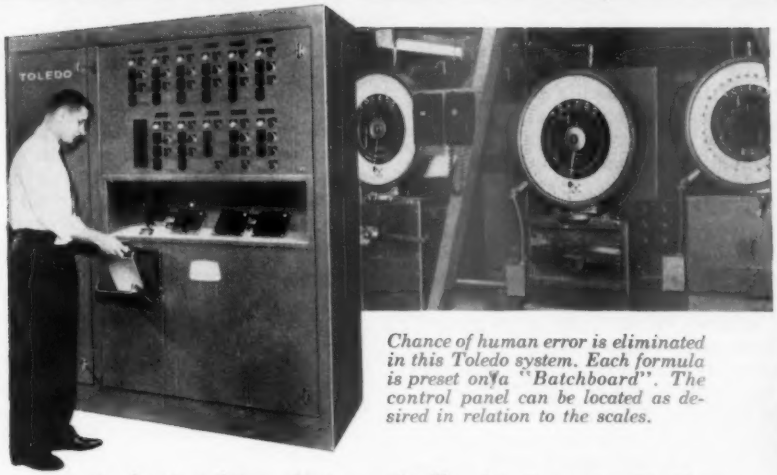
TOLEDO Reports on Automatic Weighing

★New Ideas For Cost-Saving



Checkweighs In-Motion

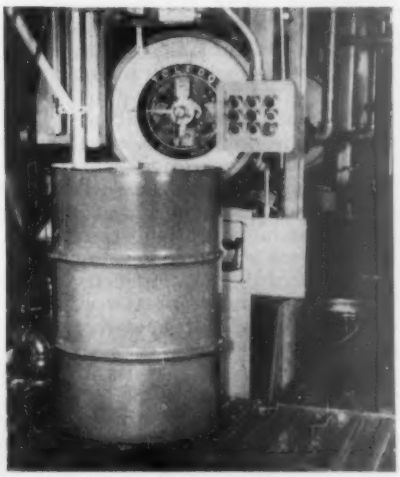
Many plants today are putting Toledo Automatic Checkweighers into their conveyor lines. Models to provide continuous, 100% in-line checkweighing of items from a few ounces to 200 pounds. Motorized belt. Handle sacks, cartons, packages, pieces, parts. Ask for Bulletin 2968.



Chance of human error is eliminated in this Toledo system. Each formula is preset on a "Batchboard". The control panel can be located as desired in relation to the scales.

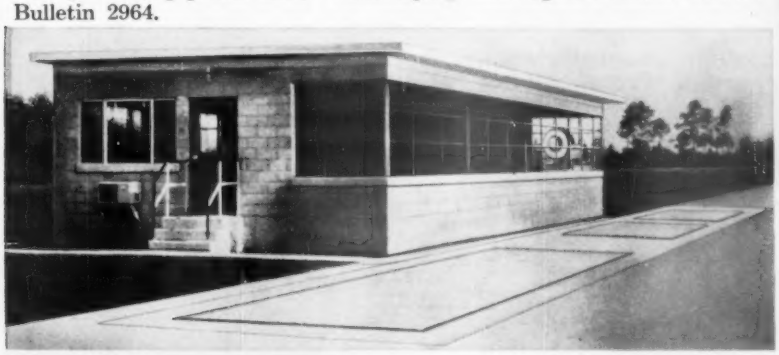
Controls Batching Automatically At Remote Stations

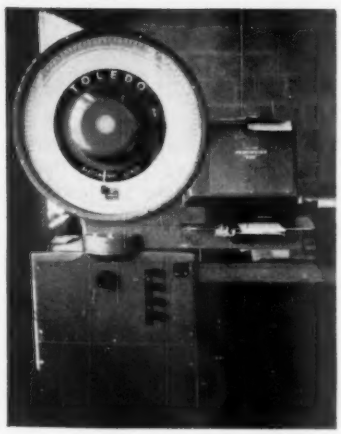
Operator at convenient remote location has full command of a multiple scale batching system with Toledo Remocon. As many formulas as required are pre-set on "Batchboards" and inserted into panel. This is one of several types of Toledo remote-control batching systems for today's needs, including punch card, "Formulaplug" and digital scanner. Ask for Bulletin 2964.



Automates Drum-Filling

In this oil industry plant, a Toledo subsurface filler automatically eliminates foaming and controls drum filling. The scale is keyed into conveyorized system . . . provides faster, more accurate filling. Saves time, labor, avoids loss of material and customer goodwill. One of many operations where Toledo controls guard costs. Ask for Bulletin 9030.





Load Cell Dial Does Triple Duty

. . . Also Printweigh Recording

One remote dial serves *three* platforms in this Toledo Electronic Load Cell Scale for truck weighing at a large cement plant. With a truck on three platforms, scale reads individual axle loads or total weight. Equipped with Printweigh "400" to print full figure weight data. Brings new versatility to weighing. Request Bulletin 2970.

•

WRITE TODAY for specialized help from our Custom Products Division, or contact the Toledo Office near you, to solve your problems in batching, checkweighing, drum-filling, load cell applications. TOLEDO SCALE, Division of Toledo Scale Corporation, Toledo 12, Ohio.

(Toledo Scale Co. of Canada, Ltd., Windsor, Ont.)

TOLEDO® *Headquarters for Weighing Systems*

SERVICE Factory-Trained 240 Cities

Rockwell Report

by W. F. ROCKWELL, JR.
President
Rockwell Manufacturing Company

THIS MONTH a group of competent and dedicated men are meeting to work out solutions to a problem that touches the life of every man, woman, and child in the United States.

They are talking about water—plain, ordinary water, so absolutely necessary to life itself and without which business and industry would come to a sudden halt.

The problem can be simply stated: The demand for water is rising faster than the supply. This is both because of the population explosion, and because the per capita use of water is rising all the time in the home and in industry. Unless supply keeps up with demand, growth possibilities of entire areas of the country will be affected. *There is no substitute for water.*

The answers to the problem are not simple. While there is no overall shortage of water, the sources of supply do not always exist at the point of demand. Water must often be transported hundreds of miles, and across state lines. It must be stored, purified, and distributed to users. After use it must be treated again so that it doesn't pollute the sources of water.

All of this calls for long range, coordinated planning by cities, states, and the Federal Government. That is what water experts from all parts of the nation are working at this month at the annual convention of the American Water Works Association.

Implementing these plans calls for money, in huge amounts. It is estimated that at least $84 billion must be spent in the next twenty years on water supply and liquid waste disposal. Since the cost of water is bound to go up, it's just good sense not to waste water.

Officials of the water industry are working constantly on water conservation methods, such as better watershed control, cutting evaporation losses in reservoirs, and more effective re-use of water. But the main opportunity for conservation lies with water users themselves, through reducing water waste.

It is water users, too—through their approval of necessary funds—who control ultimate success or failure in solving the nation's water problems. The biggest of these problems is a tremendous public apathy. It is hard for people to realize that water cannot be "as free as the rain." They usually resent paying for it.

Yet, what is the "right" price for a glass of water, when there is no water to be had? Or for the stream of water from a fire hose, when the flames are lighting up your windows?

* * *

When people pay for what they use, they are less apt to waste it. Installation of water meters has cut water consumption by as much as fifty per cent in some communities, thereby greatly increasing the ability of present water facilities to serve more people. The fact that we make water meters and valves gives us an important commercial interest in the water situation, but does not alter the truth that water metering is the most effective method of water conservation yet devised.

* * *

Years of research, and considerable sums of money, were invested by our Municipal and Utility Division in creating the first major advance in water metering in over fifty years—the magnetically-driven Sealed Register meter. This was introduced in 1957, and acceptance was immediate. Since then, two additional sizes have been put into production. And this month the industry is being shown two still larger sizes, designed in preparation for still greater water usage in the future.

This is one of a series of informal reports on the operations and growth of the

ROCKWELL MANUFACTURING COMPANY
PITTSBURGH 8, PA.

for its customers, suppliers, employees, stockholders and other friends

such part-time farmers contribute relatively little to total agricultural output. Most of this comes from the big commercial farmers—particularly numerous in the state's northern two-thirds. These men have a big sum tied up in farming, and are acquiring or renting extra acreage to use their machinery more intensively.

Their lot today is not deliriously happy. Purdue University economists have trained them to think in terms of return on investment. When they see how their return slipped below 1% last year, and how it may not improve in the future, they look longingly at the return on stocks or Treasury notes.

Economist N. S. Hadley feels agriculture would be worse off if it lost the farmers who can turn out food or fiber most efficiently. Yet these are the men most likely to abandon farming when the return drops.

This year the picture for hog farmers has temporarily brightened. Hog prices have come up from last winter's low of $12 per cwt. to $16 or so—as farmers quickly reduced the farrowing of pigs in response to low prices. They may reach $20, but are expected by election day to be at current levels again.

In the long run, however, no one sees any alternative to consolidation of farms and use of more labor-saving machinery. This means fewer hired hands on farms, more owner-operators giving up and going to the cities. Already they are sending their sons into town. "You used to give your son land," says Clinton County farmer William Rothenberger. "Now you give him an education."

• **Industry to Fill the Gap**—Will the jobs be available in town when they want them? Indiana's natural advantages for industry have not diminished. New plants are indeed going up, though few are as sizable as Alcoa's or National Steel's. It's because the need for off-farm jobs will grow that some Indiana businessmen are wondering whether the state should do more to attract plants.

Some think there is already sufficient inducement, pointing to the state's freedom from full-faith debt (debt backed by the state's credit, as contrasted with self-liquidating debt), and to the 1957 right-to-work law.

Others disagree. They concede that Indiana may have only self-liquidating revenue bonds outstanding, and that its state and local tax rates are below the national average, but they argue that both state and local governments have cut back spending too much. Among major categories of government services, Indiana spends more than the national average only for its universities (Indiana, Purdue), and for sewers. These men suggest that if the state spent more, it would make itself even more attractive to new manufacturers. **END**

Is obsolete equipment reducing your profit?

No company *wants* to "make do" with inefficient equipment. But sometimes it's a matter of necessity. Or is it? Many companies, both large and small, find that plans can materialize much sooner than expected when the Continental steps into the picture. Lending money, of course, is our principal function. But our guidance in financial planning—"money management"—is often equally valuable. Whether yours is a problem of new machinery—or of a whole new plant—you'll find the people at the Continental extremely helpful. Why not bring us in on your plans?

CONTINENTAL ILLINOIS NATIONAL
BANK & TRUST COMPANY OF CHICAGO

231 South LaSalle Street, Chicago 90

Member F. D. I. C.

DOW

INDUSTRY'S CHEMICALS

What's making news?

From crude oil, common denominator for the petroleum industry, floods endless energy and convenience—and knotty problems for the producer. Oil's natural brother, natural gas, reveals a similarly complex personality. Dow is active in the industry's production battle with both . . . providing specialized chemicals and experienced technical assistance on many petroleum fronts. Here's where Dow's industry-oriented approach pays off, serving petroleum's special requirements with special research, development and trouble-shooting facilities. Typical of Dow's across-the-board service to petroleum is its bustling activity in gas conditioning circles . . .

FAST-GROWING FUEL STAYS "SWEET AND DRY" FOR HALF-A-MILLION MILES

It isn't news to people in the petroleum and gas industries that last year, over 10 trillion cubic feet of natural gas travelled half-a-million pipeline miles to heat U. S. homes and industry. Ever-present chemical gas conditioners kept transmission and distribution systems sound and corrosion-free.

Conditioning chemicals have been an important element in natural gas' spectacular growth . . . a seven-fold increase in the last 30 years!

Why "condition" natural gas? Because, fresh from the well, it's an unruly combination of natural gas, gasoline, acid gases, water and other compounds which easily eats through steel piping and equipment necessary to move it to market. Gas conditioning removes these compounds, the most notorious of which is hydrogen sulfide . . . a poisonous acid gas with the odor of rotten eggs. Water, another bad actor, reacts in pipelines, speeding up corrosion, causing pressure-dropping deposits. These trouble-makers are knocked out by Dow chemicals.

Expanding pipelines depend on Dow gas conditioning chemicals to knock out moisture and corrosive compounds from natural gas.

In processing towers, Dow ethanolamines scrub out the acid gases which, in some cases, are recovered and made into useful products. To take out water, processors use Dow glycols, thirsty chemicals which completely dehydrate the gas stream. Voila! The gas is now dry and "sweetened", ready for its pipeline journey . . . without threat to the life of the line.

Chemical doctors. Conditioning has its headaches, like most chemical processes. When the process sickens and standard remedies don't work, Dow gas conditioning specialists are called in. From long experience, they often prescribe on the spot. Frequently, however, Dow's Gas Conditioning Laboratories enter the case. Here, Dow chemists analyze the problem . . . duplicating the process, if necessary, in the laboratory . . . to put the process back on stream. A most useful tool in such cases is Dow's voluminous file of successfully-solved case histories.

Typical of Dow's gas conditioning help was the case of corrosion in a customer's gas processing system. Working from chemical clues and corrosion theory, Dow chemists proved the corrosion inhibiting value of sodium vanadate—and put a sudden stop to the customer's costly problem. In another case, Dow research uncovered valuable new information on activated charcoal for purifying gas conditioning chemicals. Yet another example is Dow's recent development for the industry of an improved method for analyzing natural gas components quickly and economically.

Meanwhile, back at the well, Dow is at work in many other phases of petroleum. In finished oil wells, a heavy sheath of mud fills the annular space above the packer, keeping oil and gas contained by sheer weight! But mud solids settle out. Now, Peladow®—Dow calcium chloride—is used to make economical high-density brines which do mud's job without its shortcomings. And drillers rely on Dowell—a Dow service division—for increased production by acidizing wells, fracturing formulations, and a score of other essential services.

At refineries, stationary engines get increased efficiency and freeze protection from Dowtherm® 209—a Dow heat transfer medium for ebullient cooling systems. Engine and boiler parts are protected from ash buildup and corrosion, thanks to another Dow development—a new dry form of magnesium hydroxide.

Tailored to fit. After World War II, industry developed an insatiable thirst for more and more aromatic solvents. Dow took a newly-developed family of polyols, and chemically tailored a number to selectively extract from petroleum *super-pure grades of the aromatic compounds wanted.* This process was then engineered for production use by Universal Oil Products Company. Because of high production rate and super-purity of the extracted solvents, this Udex® Process is now used in 23 plants around the world.

Dow's miniature gas conditioning plant provides quick answers to customer problems.

Peladow completion brines save drillers time and trouble.

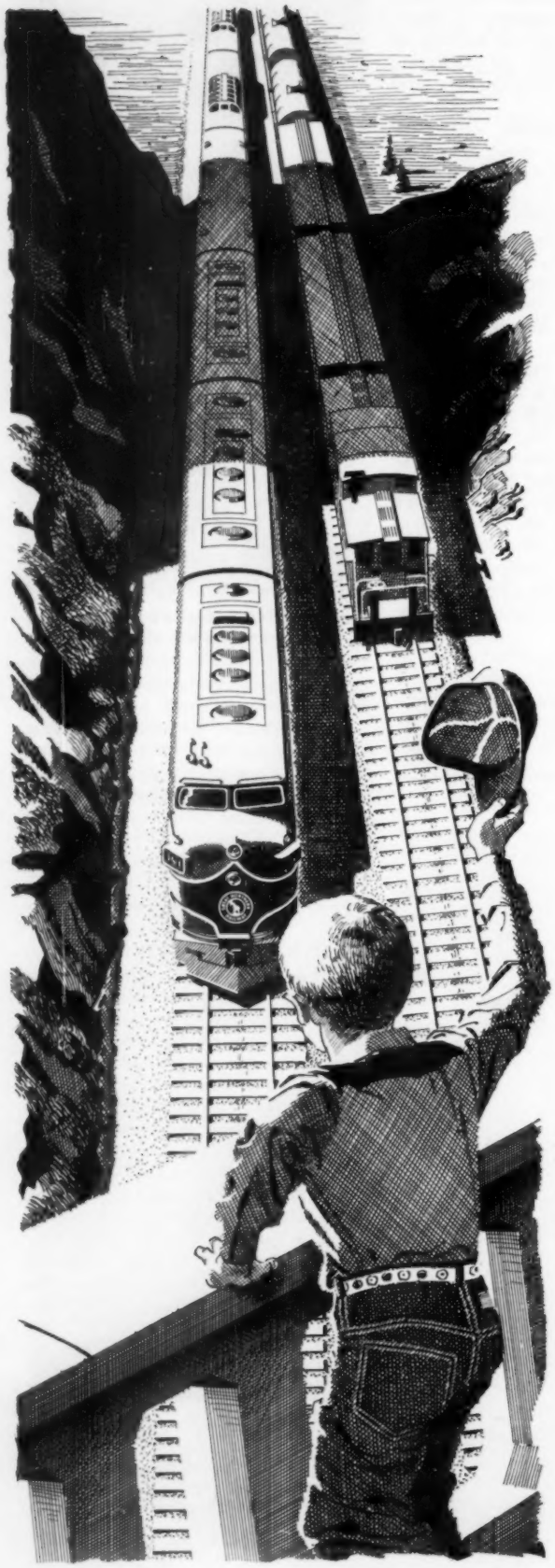
SOMETHING FOR EVERYONE. This petroleum story is only one chapter in the history of industry-oriented chemistry at Dow. No matter what your field of business, chances are Dow chemists have developed answers to problems you're worrying about now . . . and chemicals that make those answers workable. Why not find out? We've prepared a number of digests which show the roles Dow chemicals play in major industries; among them the Petroleum, Automotive, Paint, and Mining industries. For your copies, or for more information on Dow chemicals, write THE DOW CHEMICAL COMPANY, Midland, Michigan, Chemicals Merchandising Department 301AF5-28.

★ ★ ★ ★ ★

THE DOW CHEMICAL COMPANY

Midland, Michigan

DOW



Great Northern's "best foot forward"...

the incomparable Empire Builder

Chances are your own company has as a "leader"—a single product or service that best advertises your *total* line. In our own case, as a railway carrying hundreds of thousands of passengers and millions of tons of freight, our "showcase" is an incomparable train, the Empire Builder.

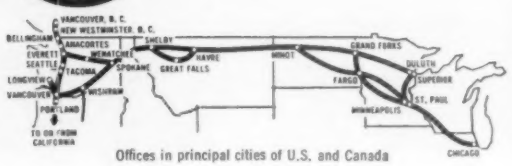
This sleek streamliner—between Chicago and Seattle, Portland—is the natural choice of business executives who are rediscovering a happy fact of travel: frequently, it pays *not* to hurry. It is the choice of pleasure travelers who would rather someone else "take the wheel" while they enjoy carefree hours of fun, rest and relaxation. It is the choice of vacationers—bound for the nation's most thrilling scenery.

But most important, Great Northern's Empire Builder is a magnificent example of how a modern, service-minded railway attends the needs of communities on its line. For the "spit and polish" needed to maintain this luxury train carries over into Great Northern freight services. Thus, with utmost efficiency and dependability, we are able to transport ores, grains and lumber from the northern tier of states—and return to this region the manufactured goods of other areas.

Whether you are traveling or shipping, learn what makes Great Northern great. Your local ticket or freight agent will be glad to help.

GREAT NORTHERN RAILWAY

Direct passenger travel inquiries to:
P. G. Holmes, Passenger Traffic Manager;
freight inquiries to G. D. Johnson,
General Freight Traffic Manager,
Great Northern Railway,
St. Paul 1, Minnesota



Offices in principal cities of U.S. and Canada

RESEARCH

For Steak, Grandpop's the Key

Tenderness of a steer's meat depends on individual heredity, not breed or appearance. This discovery at Texas A&M could revolutionize cattle industry.

If you want to predict the tenderness of beef, find out how the steer's grandparents shaped up; you can ignore the animal's appearance and the breed to which it belongs.

That's the somewhat revolutionary finding of a 10-year study at Texas A&M College. It knocks the props out from under the traditional standards of judgment used by cattlemen, and from under the Agriculture Dept.'s carcass grade classification to guide the consumer toward tenderness.

What's more, with the cattle breeder's stress falling on an infinite complexity of ancestral qualities, the computer is likely to end up as the No. 1 tool in the business. Of course, the old-line cattleman will probably drag his feet for a while, clinging to his grandpappy's methods. But the switch to the A&M dogma seems inevitable. Beef production is very big business (14-billion lb. a year in the U.S.), and business, big or small, is attracted inexorably to the sort of profits that would come from growing cattle that would produce exactly the meat that the consumer wants.

• **More Study**—The people at Texas A&M think the change will come slowly; it will be at least five years before genetic studies can produce really reliable formulas for predicting tenderness.

When it does come, it's likely to set off the major change in the whole U.S. meat economy, though. Already the stage is set for a major upheaval by the growth of urban markets, increased feed raising on the ranches, and the decentralization of the packing industry.

• **Serendipity**—Sheer luck, as so often happens in research, actually started the hunt for a scientific relationship between cattle genetics and the tenderness of beef. Back in 1942, Texas A&M was trying to find an improved feed for "wintered" (off the range) bulls. The researchers noted considerable variation in the rate of gain among animals getting the same rations. They went on from there to find a clear pattern in the rate at which animals gained. Bulls with certain sets of common ancestors almost invariably gained well; those with different family trees put on weight more slowly.

Since breeders and feeders of cattle are paid by the pound, the steer that gains weight fastest is going to make the most money for the owner. So, with the fact established that gainability—to use the trade jargon—was hereditary, Texas A&M saw that a whole new concept was opening up for practical cattle breeding. If you bred a more efficient machine—an animal that did a better job of turning grass and feed into meat—you would step up the efficiency of the whole industry.

In the early stages of the research, quite an assortment of cattle were studied to see how their rate of gain checked against their ultimate quality as dressed carcasses; from there, the natural step was to find if stepped-up gainability would affect quality.

The researchers were surprised by what they found, according to Dr. Thomas C. Cartwright, professor of genetics at Texas A&M. Of the individual animals that were classed as fast gainers, 52% produced meat that rated high for tenderness. And the offspring of animals that scored high in both gain and tenderness invariably rated within a point or two of their parents' average.

• **Unexplored Areas**—Much research remains to be done. For one thing, no one knows the point at which such other variables as feed and environment begin to affect the heredity-tenderness relationship.

One thing that the project has established already is that the Agriculture Dept.'s classifications—choice, prime, good, etc.—are no better as a measure of tenderness than the old saw that "marbling" is a good indicator of succulence. Steaks don't necessarily get tougher as you run lower in the classification scale, and tenderness varies widely within each grade. That "ideal" steak with firm white fat around well-marbled meat may be as tough as a boot.

• **Holding Back**—The Texas A&M people have no doubt that these truths will meet much resistance, among cattlemen and in Washington. The industry has always balked at radical change, and this will mean a revolution in breeding practices of the first order. The original Texas cattle raisers had just one basic principle: to get a four-legged animal to market, with little worry about what kind it was or what sort of range conditions shaped it. When some aggressive types introduced Hereford cattle to the range, the old-line raisers of longhorns bellowed with rage. Still later, when Angus cattle appeared, the ranchers bellowed again.

In the early 1930s, when the federal government campaigned for improved grasses, the program was resisted stiffly by ranchers who claimed that "God put the land and grasses here, and we aren't going to change them."

Some of this yen to resist change still remains in the cattle country, but R. E. Patterson, vice-chancellor of agriculture at Texas A&M, believes that today economic pressures will break down most of it. Tremendous capital investment, rising taxes, increasing costs of operating and borrowing are all working against the traditionalists. Patter-

CATTLE FEEDING EXPERIMENTS in these pens at Texas A&M led, at first by sheer luck, to discovery that heredity governs "gainability" and tenderness of beef.

son says "Ranchers are looking to research to ease the bind," since they see no other way to improve efficiency and profits.

• **He Who Gets Hurt**—When the changeover does come, some individuals will get hurt. The third-generation rancher, brought up to believe that a cattleman can tell all about a steer or a steak—just by looking at it—is apt to be the same fellow who has tied up $10,000 or more in a prize bull, rich in pedigree and show ribbons. Unless that bull just happens to be able to transmit gainability and tenderness to its offspring, his investment in it is likely to waste away when the A&M findings become commonly acknowledged.

The new knowledge about genetics is just one of the factors working for modernization in the cattle business, though:

• Market studies at Texas A&M and elsewhere have shown that the housewife wants lean red meat without regard to the government label on the piece of meat she is buying. Survey after survey has shown that meat bearing the Prime stamp is the least wanted of all the grades, even when it costs no more. The largest group of consumers goes for the Good grade, even when it costs as much as its official betters, Choice and Prime. Thus, ideally, the cattle breeder should produce a maximum of beef that will get the Good rating. And the only known way to do that is to breed on the basis of ancestral characteristics.

• The big meat packers such as Armour and Swift are under increasing pressure to standardize meat in a hurry. Armour's C. J. Hill says his target is beef with ¼ in. of fat and an 8-lb. shear force—the approximate pressure needed to cut steak with a dull knife. Armour is so concerned over quality control that it has gone into the breeding business to get cattle with the desired characteristics. Swift, taking another approach, announced just last week a technique for injecting cattle, just prior to slaughtering, which is said to increase meat tenderness at all grades.

At Texas A&M, they don't believe standardization can get precise until well into the 1970s. But they are sure it will happen eventually—and completely revolutionize cattle raising.

• **How Will They Look?**—Agricultural stations like to amuse themselves guessing what cattle will look like when they have been bred to specific tenderness. Some believe there will be few changes in appearance. They cite R-Domino-8, a bull at Texas A&M, which looks precisely like other bulls of its breed, yet scored 40% higher in gainability than the national average. Its sire, too, had an unusually high rate. The current project is to find whether unusual tenderness can be bred into R-Domino-8's offspring.

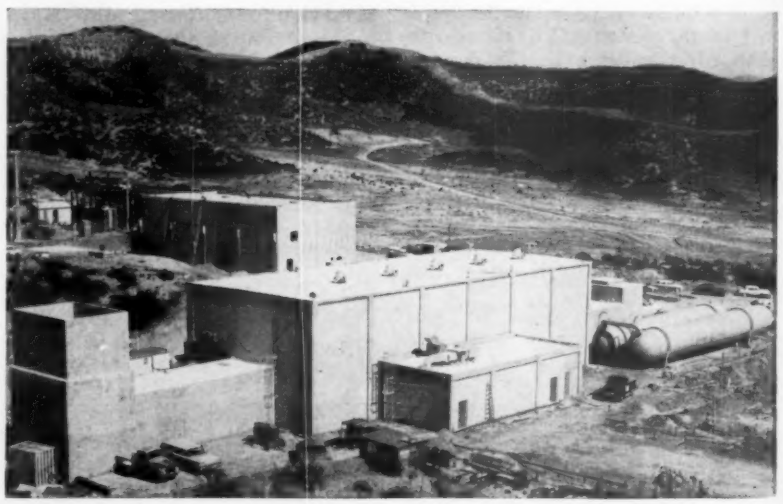
In any case, the researchers are wasting no time on trying to maintain superficial characteristics of a breed, no matter how much the cattlemen may insist today that herds must bear family resemblance.

Breeding for appearance was a trap that the Hereford breeders stumbled into some years back. They insisted that all Hereford's used for breeding must have the characteristic pure white faces and pink eyelids. Only later did they discover that the incidence of eye cancer is much higher among cattle with pink eyelids and change their breed requirements.

• **Stress on Shows**—Today's emphasis on showing cattle may also backfire, the research men say. Cartwright notes that show judges give points to steers shaped as nearly as possible like a box. But a steer that places high in a cattle show rarely wins in a carcass show. Says Cartwright: "One of the solid bits of negative information the research at A&M has turned up is that there's no relationship between a drooping rump and the quality of the meat inside the steer."

Tests similar to those of Texas A&M and the meat packers are being carried on by the Agriculture Dept., at its Range Livestock Experimental Stations at Miles City, Mont. At the moment, the Agriculture Dept. target is correlation of beef production characteristics—weight at birth, weaning rate, rate of gain—to carcass quality. With tips from Texas A&M, the Miles City people are using a genetic approach, however.

There are already signs that some of this scientific thinking is seeping through to the ranchers. At this year's Texas Fair, one part of the cattle judging show will be "cutout" estimates—the judges will have to rate animals on the kind of meat under the hide. To the old timers, that may seem nonsense, or downright subversive. But it's a good indicator that the cattle business is beginning to switch from a way of life to coldly calculated business.



Moving Wind Five Times Speed of Sound

First operating checks will start next month on Lockheed's new supersonic wind tunnel near Saugus, Calif. The Mach 5 tunnel, designed to test aircraft and missile shapes at speeds up to 3,800 mph. for as long as two minutes, is the first major facility to be completed in the company's projected multi-million-dollar California Div. Research Center. Next installation to be built is a five-chamber test facility to simulate altitudes up to 500,000 ft.

The wind tunnel, small by comparison with some others (BW—Nov.2'57, p194), will gain its tremendous power through what is known as a "blowdown" technique. In contrast to installations that continuously recirculate air, it will depend on stored air.

When pumps are working at full capacity, air through the tunnel will reach a rate of 3,600 pounds a second—the equivalent of 500,000 horsepower, or enough energy to drive three Forrestal-class aircraft carriers at full speed. Tunnel temperatures during a supersonic "blow" will fall as low as −300F.

According to engineers, the tunnel will be most useful in testing models 3 ft. wide by about 3 ft. long. Models up to 8 ft. long can also be tested.

To help chart technical information from wind tunnel testing, Lockheed has acquired a high-speed data-processing system, scheduled for installation soon. Providing 5,000 readings per second, this additional equipment will record data on magnetic tape.

WHAT BORDEN CHEMICAL LAUNCHES A NEW IDEA IN PACKAGING?

Lemoflex! It's the remarkable, new packaging material that *dissolves in water!* What a sales booster for detergents, cleansers, bleaches, dyes, fertilizers, insecticides and such. And what a big boon to users.

A unique polyvinyl alcohol derivative, Lemoflex makes possible water-soluble films that you can see through, heat-seal—*and print on!*

If you are in the business of making packaging films or are a packager, write Borden Chemical for the full Lemoflex story. Borden is a leader in resin chemistry—has the widest range of thermoplastic and thermosetting resins and polymers in the business. The Borden Chemical Company, Department **BW89, 350** Madison Avenue, New York 17, New York.

IF IT'S A **Borden** **Chemical** IT'S GOT TO BE GOOD!

In Research

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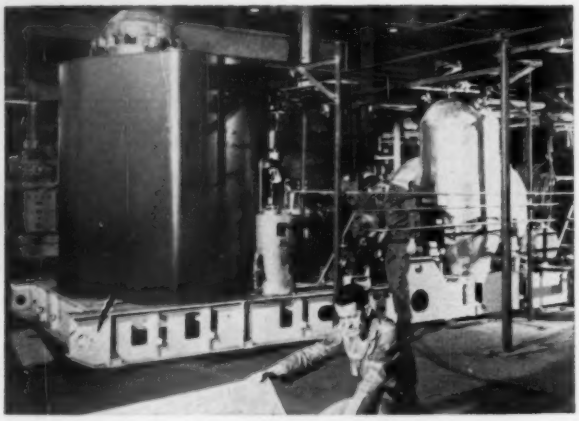

Atomic Power Plant for Arctic Base Arrives on Site in Knocked-Down Kit

Army polar research efforts rolled into high gear last week when a special Army task force left Camp Tuto near Thule, Greenland, to try to establish a pair of safe overland routes from the coast to the crest of the polar icecap. The expedition is led by 30 specially trained ice experts from the Transportation Corps. Along the way across the icecap, scientists will get a chance to make meteorological, glacial, and other scientific observations.

Back at Camp Tuto, there is also increased activity connected with the Camp Century project. Preliminary efforts were made to dig the main tunnels for the first city, under the ice, last summer (BW–Sep.26'59,p87). Just last week, the first sections of the piece of equipment that will make life bearable for the 100 scientists and maintenance men who will inhabit the under-ice city next winter–a nuclear power station–arrived from the States.

Built by Alco Products, Inc., this pressurized-water, prefabricated unit, when put in place (picture), will deliver about 1,500 kw. of electricity for power and heat, plus about 1,000 lb. of steam per hour to be used for purifying the air. The most unusual characteristic of the reactor, known as PM-2A, is that **it has been built in 27 conventional packages for easy-on-the-spot assembly.** Each package will be flown to Camp Tuto and then carried by tractor to Camp Century.

The Army estimates that at most other Arctic installations, from 70% to 80% of its transportation effort involves bringing in fuel oil for power generation. At remote sites that must be supported by air lift, the delivery cost of diesel fuel exceeds $1 per gallon. **A diesel-fueled plant with the same output as the PM-2A would need about 1-million gal. of oil each year.** Research, development, and production costs for the PM-2A ran to $3.2-million, but the plant will operate for 12 months on a single loading of enriched uranium fuel–less than a single plane load.

Denmark, in March, approved the Army's installation of the nuclear reactor under the ice at Camp Century. Greenland is part of Denmark, and the U.S. operates its bases there under agreements with the Danish government.

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Thermoelectric Generator for Navy Produces 50 Times More Power

Scientists at Westinghouse Electric Corp. report successful development of a 5,000-watt thermoelectric generator for the Navy's Bureau of Ships. Thermoelectric generation of electricity from heat is but one of a number of methods of energy conversion being explored in laboratories today, but this particular thermoelectric generator is notable because **it's 50 times as powerful as any other of its type.**

Two or three years ago, scientists were struggling to light a flashlight bulb with electricity produced thermoelectrically; **now they've come up with a power plant effective enough to light eight or 10 houses simultaneously.**

To provide maximum flexibility in design, according to Dr. S. W. Herwald, Westinghouse vice-president, the 5,000-watt generator is built as two identical sub-generators, connected to give full output. The thermoelectric portion of each sub-generator resembles a cylinder, about 30 in. in diameter and 30 in. high. Its hot inner surface (when the generator is working) is exposed to the flame of burning kerosene; its outer surface is cooled by water.

As heat flows through the thermoelectric cylinder from its hot face, electricity is generated and tapped off. The only moving parts in the entire system are in the pumps (used for circulating the cooling water) and in the kerosene fuel burners. Both are operated by electric motors that draw their power from the generator itself.

Construction of useful thermoelectric generators has been made possible, chiefly by the development of semiconductor materials.

However, the Westinghouse generator operates at temperatures as high as 1,200F, while its cool side is kept at about 50F. No single material could efficiently span this range of temperatures. So researchers used six different thermoelectric materials in their latest model.

Efficiency still isn't high–only slightly under 10%. But, in view of recent progress, there's every hope that the thermoelectric generator can soon be raised to within range of the efficiency of the steam turbine–about 30%.

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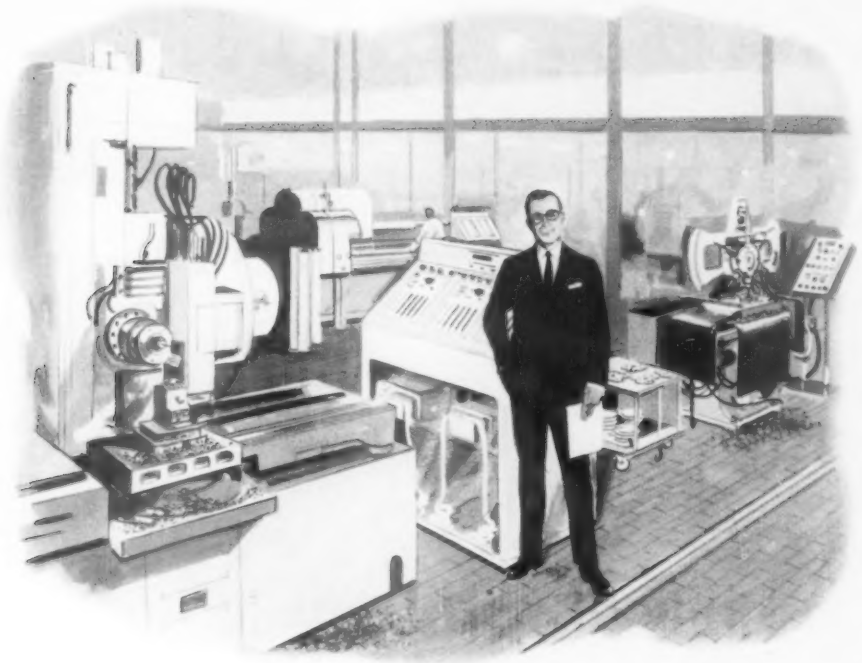
Research Briefs

The Mexican government has signed an agreement with American Cyanamid Co.'s Lederle Laboratories Div. for enough oral polio vaccine to inoculate 1-million children with a single dose–the largest group ever given the Lederle vaccine.

Exide Industrial Div. of Electric Storage Battery Co. has signed agreements with 12 companies to develop a fuel cell to power electric material-handling trucks. Already well along in R&D on a rechargeable zinc-oxide cell, Exide thinks it should be possible to have a usable fuel cell on the market within a few years.

TODAY'S
NEW
AUTOMATION



lower costs

Today, despite the many pressures forcing costs up, alert industrial management is taking effective countermeasures. The solution: lower costs through effective use of today's new automation technology. *And leading the field in serving these automation-minded companies is General Electric.*

For example, 1960 finds the metalworking industry in the midst of a major changeover to automatic machining of job-lot parts. Machine tools equipped with General Electric "Mark Series" numerical controls mean greater machine output, elimination of special tooling, lower inventory needs, with better product quality. Net result: cost savings of 50% and more on job after job.

In metalrolling, the world's first completely computer-directed hot-strip steel mill—automated by General Electric—will be in production this year. G-E Automatic Dispatch Systems for electric utilities select the best combination of generating equipment for each load condition—for lowest-cost electric power. General Electric information-handling skill and process know-how are at work to bring the cost and quality benefits of computer control to such industries as petroleum, chemical, and cement. G-E automatic material control systems now in use range from post offices to packaged goods.

The solution to *your* cost problems may be a complete General Electric automation system—or the initial stage in a program leading to eventual integrated automation of your business. An early discussion with your General Electric Apparatus Sales Engineer is a good first step in determining the answer. We'd also like to send you our new management brochure on automation. Write General Electric Co., Section 696-2, Schenectady 5, N. Y.

THE PRODUCTS, PROCESS KNOW-HOW, AND INFORMATION-HANDLING SKILL FOR COMPLETE AUTOMATION SYSTEMS

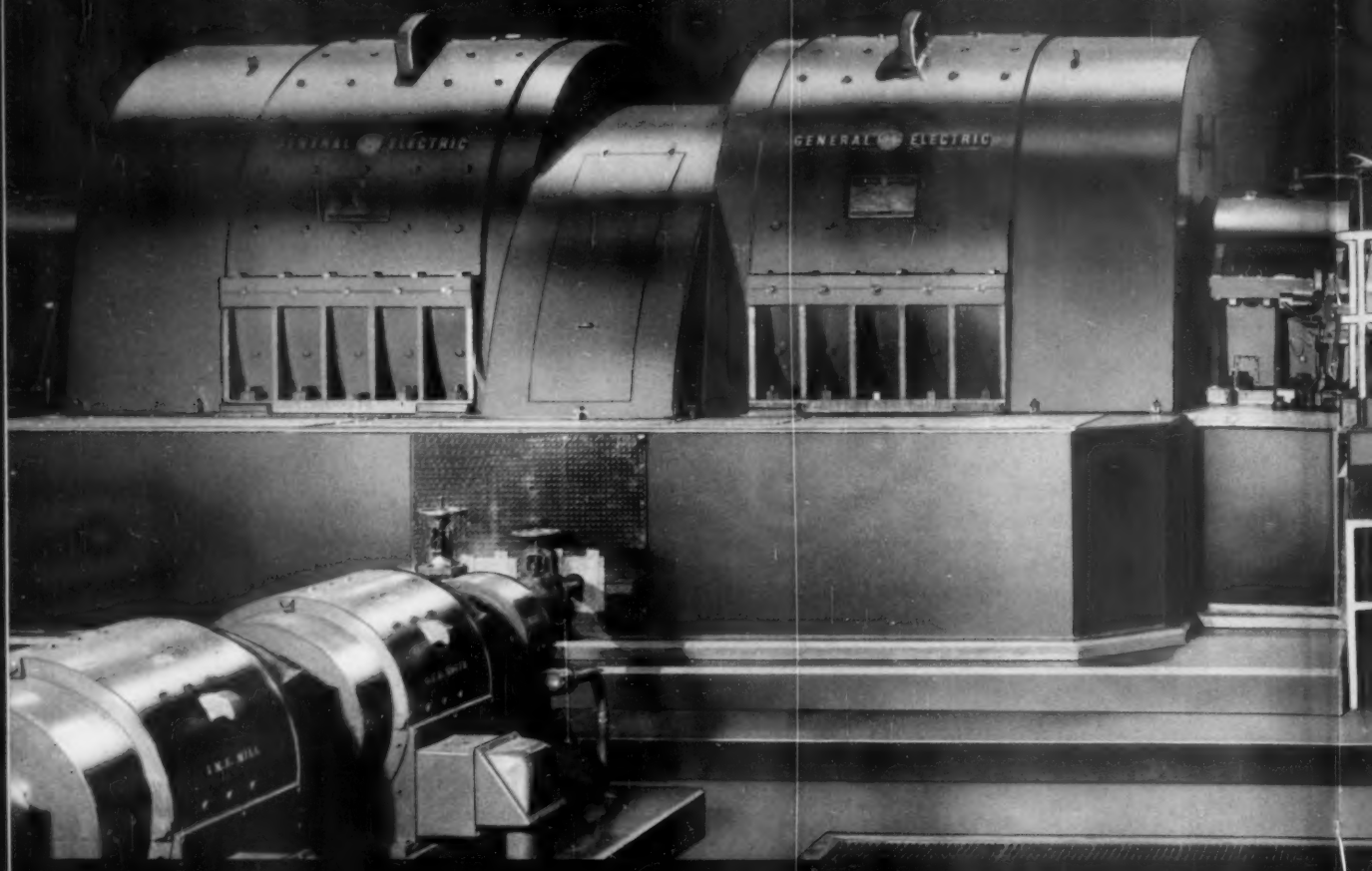
process control
numerical control
instrumentation
computers
communication
x-ray sensors

INDUSTRIAL ELECTRONICS DIVISION

Progress Is Our Most Important Product

GENERAL ELECTRIC

Three Reasons General Electric D-c Drives are Best for



1. Costly Maintenance Shutdowns Reduced

D-c Main Drives

In metal-rolling mills—where minutes of downtime are measured in thousands of dollars—fast, simplified maintenance of main drive motors is critical.

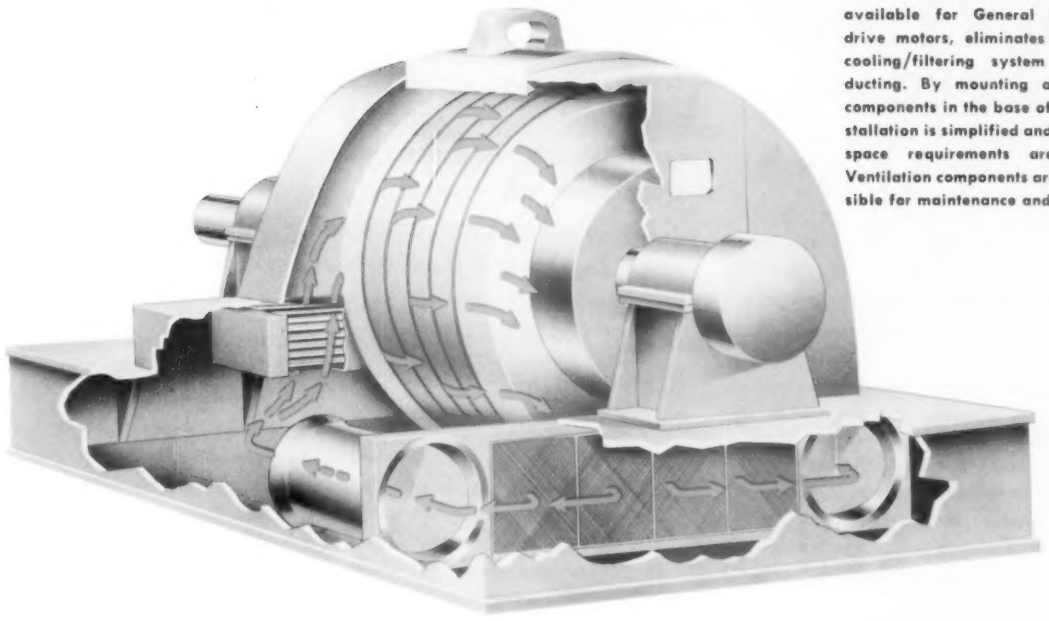
The revolutionary "TOP-FORWARD" twin-drive shown above exemplifies General Electric's continuing emphasis on better design for ease of maintenance. Shaft extension of the rear motor passes *beneath* the forward motor instead of directly over as in conventional designs. This unique drive arrangement allows clear access by overhead crane to all bearings, air-shields and other components of *both motors.*

Shorter over-all length of drive substantially reduces space required and provides cost savings in foundation construction. Improved Class B Insulation system for armatures and fields, utilizing proven resins and compounds, provides greater resistance to heat, moisture and dirt.

Progress Is Our Most Important Product

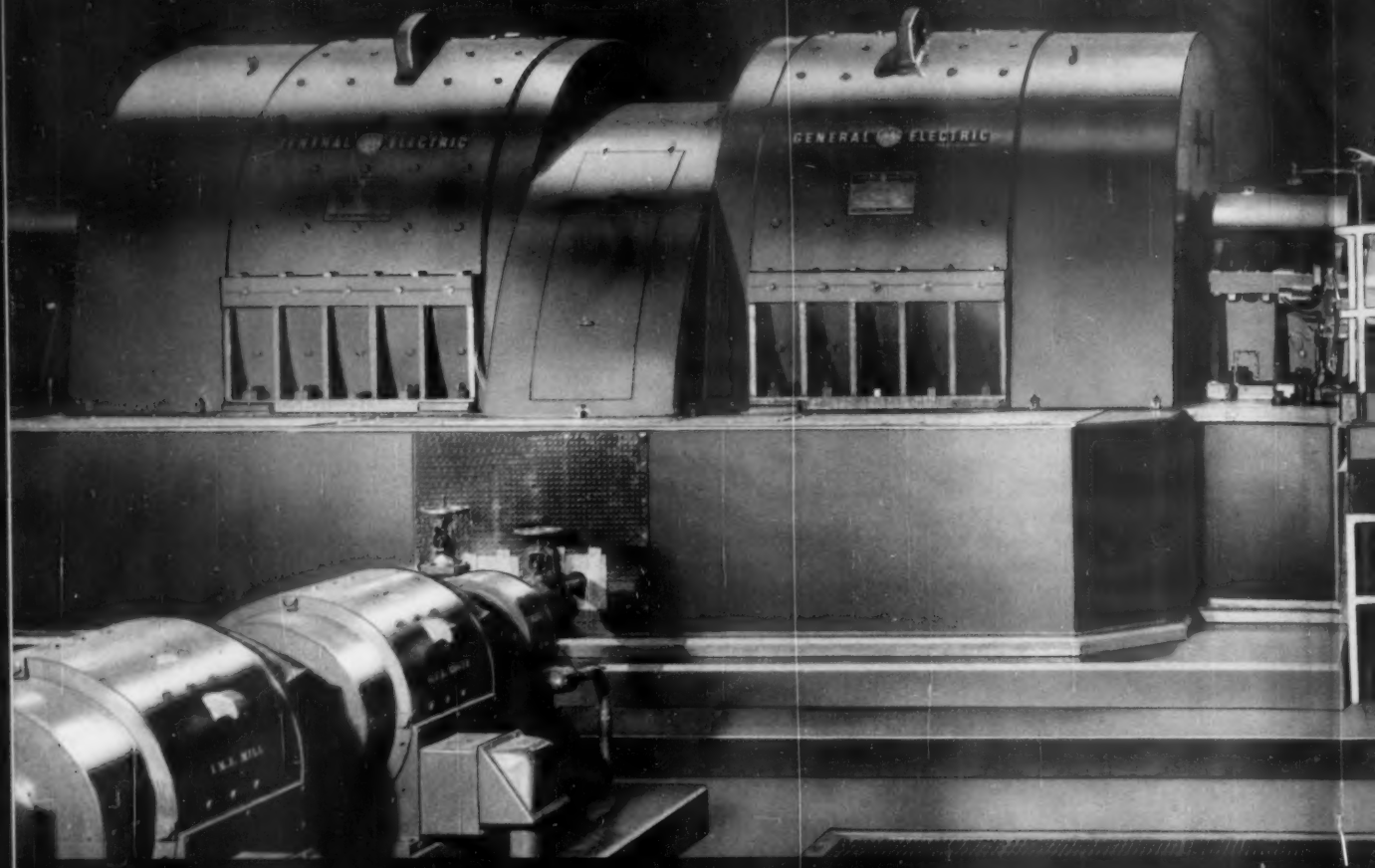
GENERAL ELECTRIC

by New Advances in D-c Drive Design



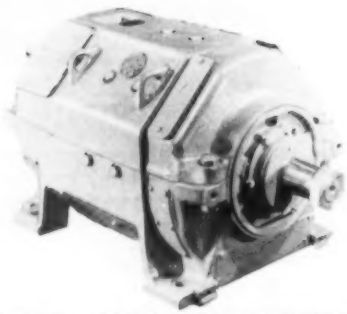
INTEGRAL VENTILATION SYSTEM, available for General Electric main drive motors, eliminates separate air-cooling/filtering system and related ducting. By mounting all ventilation components in the base of the drive, installation is simplified and supplemental space requirements are eliminated. Ventilation components are easily accessible for maintenance and inspection.

Three Reasons General Electric D-c Drives are Best for



2. G-E Drives Are Durable and Reliable—

D-c Auxiliary



GENERAL ELECTRIC'S MD-600 ARMORED MOTOR is built to withstand severe shocks, give maximum reliability. Class H insulation provides superior protection—permits greater work capacity.

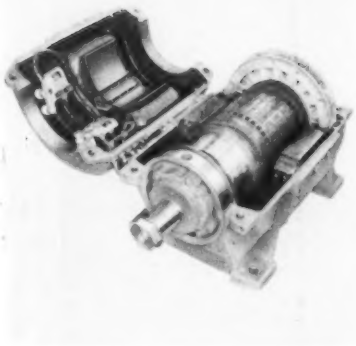
Designed to exceed the requirements of the most advanced continuous processing systems, General Electric MD-600 series armored mill motors are built to withstand regular exposure to hot scale, steam and corrosive sprays. Improved high temperature insulations have appreciably lengthened motor life.

Designed to meet or exceed AISE standards in all respects, General Electric's armored motor offers unmatched flexibility. This motor can be adapted to fit any of five different ventilation requirements simply by adding or removing standard covers. No other modifications are necessary.

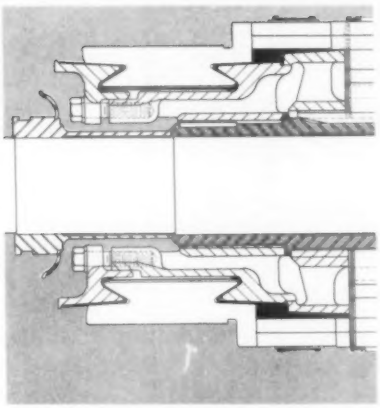
Progress Is Our Most Important Product

GENERAL ELECTRIC

Meet Demands of Continuous Processing



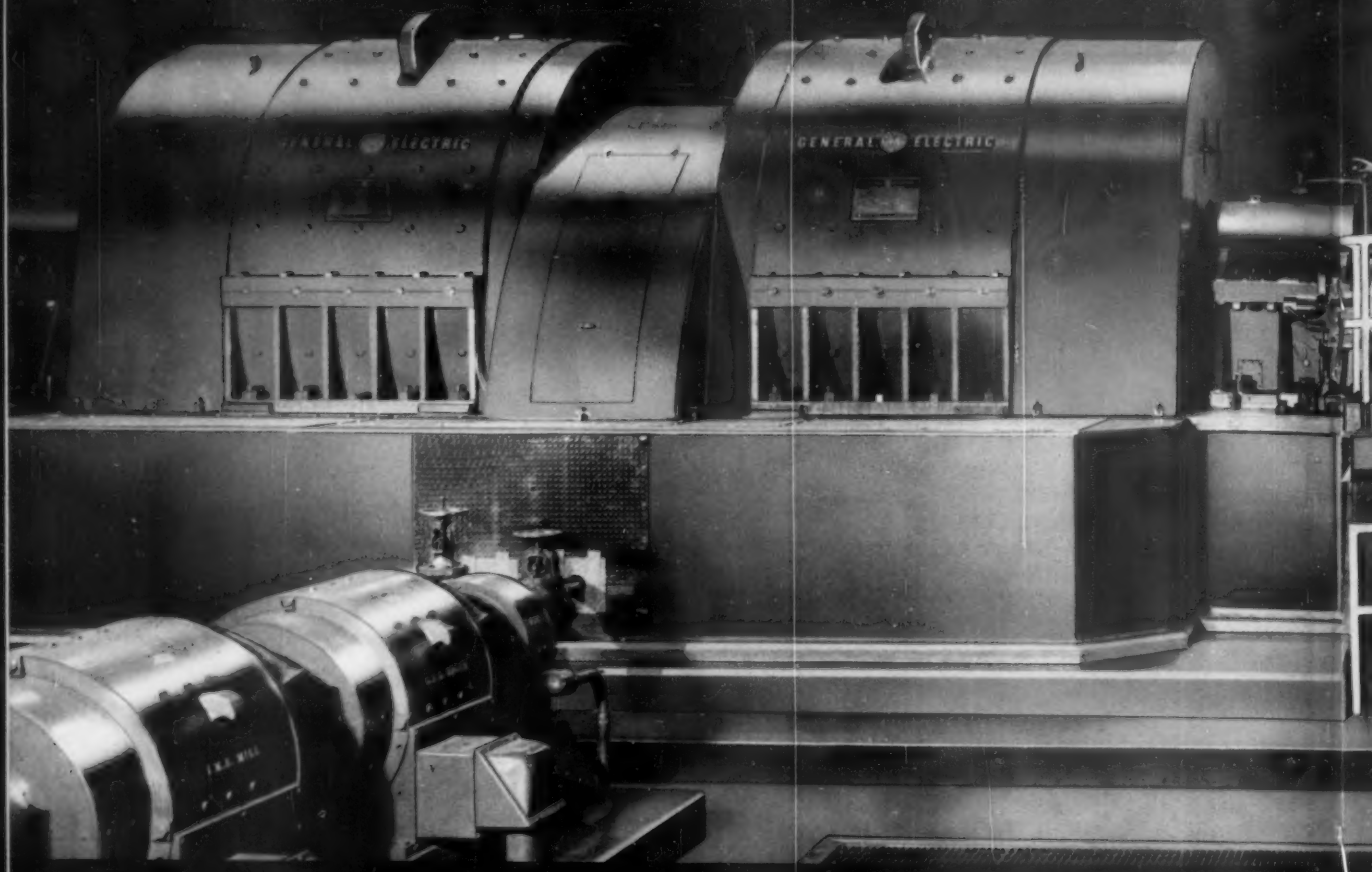
DESIGNED FOR EASY ACCESS, top half of MD-600 motor frame swings open nearly 180° to permit fast armature removal. Positioning keys in frame heads facilitate armature alignment.



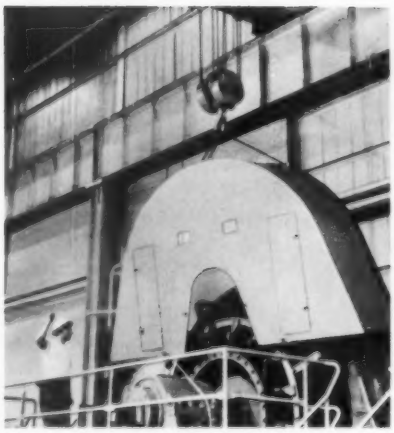
DESIGNED FOR EASE OF MAINTENANCE, the armature on General Electric armored mill motors is assembled on a steel spider so the shaft can be pressed out without disturbing commutator or windings. Armature design permits fast, accurate response.

BUILT TO DRIVE HEAVIER LOADS—accelerate, start, stop and reverse faster—MD-600 motors meet toughest demands of automation. Integral feet on endshields allow armature to stand alone when removed from frame.

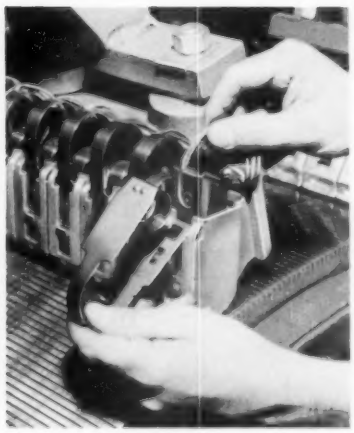
Three Reasons General Electric D-c Drives are Best for



3. G-E Drives Give You New Competitive

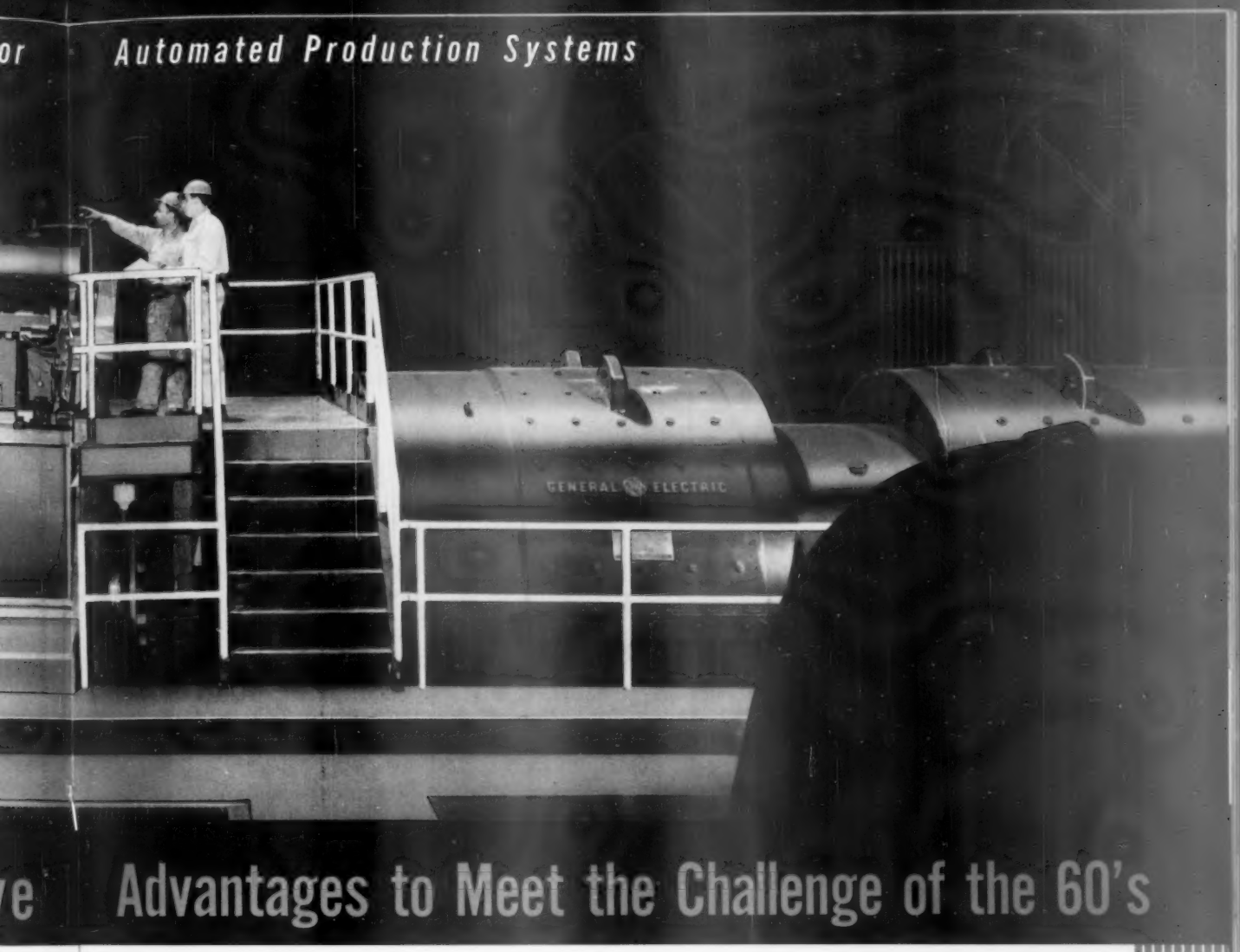


NEW QUICK-REMOVABLE COVERS use no bolts, permit easy access. Tapered guide pins, attached to "TOP-FORWARD" d-c main drive motor frame, accurately position covers on base and frame. Removal and replacement time is reduced to a minimum.



CONSTANT-PRESSURE BRUSH-HOLDERS eliminate all pressure adjustments, give optimum contact at all times. General Electric brush-holder design permits observation of brush wear. Brush can be replaced in seconds.

DISC-LUBRICATED BEARINGS provide positive oiling during all operating conditions. Self-aligning, cast-steel, babbitt-lined bearings can be removed without disconnecting oil piping—maintenance is simplified.



Advantages to Meet the Challenge of the 60's

Higher processing speeds, tighter production schedules and better product quality are requisites of industrial growth in the coming decade. As continuous processing and automation techniques spread throughout industry, rapid maintenance of basic equipment becomes an increasingly important competitive advantage.

General Electric's simplified maintenance drive design gives you this advantage plus the high thermal and mechanical limits and improved commutation demanded of automated processes.

Let your G-E Sales Engineer show you how easily new d-c main and auxiliary drives can fit into your modernization plans, improve operating efficiency and help you meet the challenge of the '60's. For descriptive information on d-c motors for heavy industry, write Section 772–9, General Electric Co., Schenectady 5, N. Y. *Large Motor & Generator Dept., Schenectady, N. Y./Direct Current Motor & Generator Dept., Erie, Pennsylvania.*

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Self-Starting: No forced feeding involved. Once a man exposes himself to the pages of the publication properly matched to his job, he finds himself reading spontaneously, and learning.	**Low in Cost:** Yes, even for larger companies where many hundreds of men may participate in this VIP program. The plan is economical to start, equally low cost to keep in operation.

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PREASSEMBLED distillation tower for air separation plant is transferred from barge to flatcars for trip to plant site in Ohio.

Prefabbing on a Big Scale

The crane in the picture is not lifting a freight car—it's struggling with one section of a prefabricated air separation plant on its way from New York to an Ohio steel company. The 88-ft. by 12-ft. piece shown in transit is the distillation tower, where liquid oxygen is separated from air that has been liquefied by cooling.. It's one of six units that make up the whole plant.

Capable of pumping out 200 tons of liquid oxygen a day, the plant is the largest such facility ever put together in an off-location factory, according to its manufacturer, Project Fabrication Corp., College Point, N. Y. Ordinarily, chemical process plants are built in temporary shop quarters housed in sheds on the site. Although some manufacturers have prefabbed smaller plants in the past, they are hesitant about doing it with big ones because of handling and shipping difficulties.

• **Quick Assembly**—Project Fabrication overcame the size problem by breaking the plant down into six "building blocks" which are shipped separately, quickly hooked up on site. When compressor and freon heat exchanger are added, both standard items, the rig is nearly ready to go onstream. The 50-ton distillation tower was ferried across the Hudson River by barge and then loaded on three Erie RR flatcars. The other sections are small enough to be loaded into trucks.

In Project Fabrication's factory, workers hand weld the piping and valving for each unit from aluminum. Since the plant runs at extremely low temperatures, about −300F, all operating parts have to be thoroughly insulated. So the next step is to encase the units in a steel sheath; this gives them a blocklike appearance. After the plant is erected at the site, insulation is forced in between the outer wall and aluminum interior.

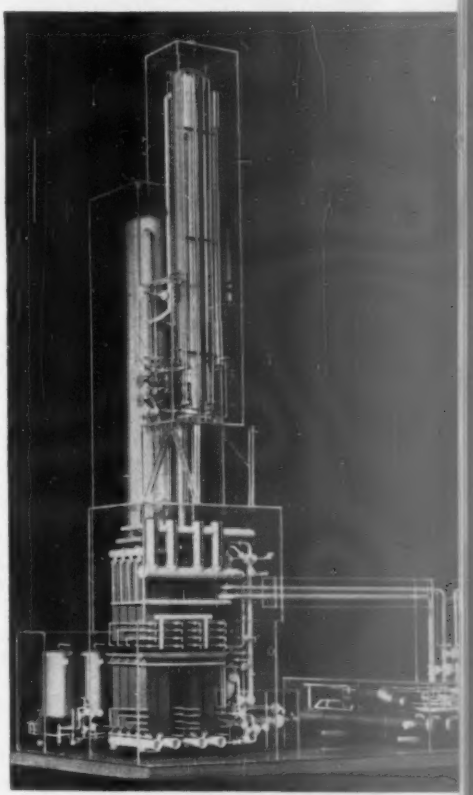
• **The Advantages**—Engineers at Project Fabrication cite these advantages for preassembled plants:

• In its factory, a company can use its own trained workmen, whereas in the field it has to hire local labor, an unknown quantity.

• The interior parts of a chemical plant have to be kept extremely clean —and it's a lot easier to control dust and dirt in a factory than it is in the field.

• The standardized manufacturing procedures possible in a factory mean lower costs.

Hydrocarbon Research, Inc., of New York, designed this plant as part of a $6.5-million facility for Wheeling Steel Corp. in Mingo Junction, Ohio. The installation will have twin prefab plants turning out around 400 tons of liquid oxygen a day, plus liquid nitrogen and high-purity liquid argon. Wheeling will vaporize most of the oxygen for its own purposes, plans to market the remainder along with the byproducts.



FINISHED PLANT will look like this model (except for see-through sides) when its six prefab sections are put into place.

EAGLE-PICHER / Manufacturer's Manufacturer

"Frits," basic material of porcelain enamel, add beauty, color, durability and sales appeal to metal products.

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Our interest in porcelain enamel stems from the basic product, the "frits" produced by Eagle-Picher's Chicago Vitreous Corporation. As a manufacturer's manufacturer, we have developed a special fund of knowledge in this and various other fields. For it is part of our job to combine background, capacity and flexibility in a way that most efficiently serves other manufacturers.

To better serve our manufacturing customers we carry on a continuing program of research and development. Out of this sustained research have come new areas of knowledge . . . new developments such as low temperature enamels . . . new products such as Tint-Taniums (exclusively developed colored frits).

The natural versatility of porcelain enamel, encouraged by research such as ours, has led to ever-widening uses. It has found its place in products that range from jewelry to jet engine liners to "curtain walls" encasing modern buildings. Despite the current broad span of applications for porcelain enamel, there are undoubtedly many more to come. We welcome the opportunity to explore such applications with other manufacturers, architects and industrial designers.

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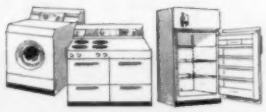

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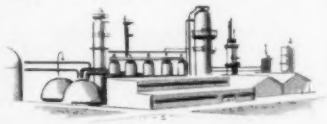

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TV Set With Inside Difference

The television industry perked up its antennas this week as Motorola unveiled the rather ordinary-looking television set pictured at the right. Scarcely different from other sets on the outside, this set is very different on the inside. It has transistorized innards and operates from a battery for five hours or just as happily from a 110-v. wall outlet.

The new transistor model, which will lead Motorola's 1960 line of consumer television sets, is the first of its kind on the market with a full-size picture tube. Other transistor portables have a much smaller screen, which, Motorola feels, condemns them to the novelty market.

• **The Price**—The set is premium-priced at $275, about $75 more than Motorola's best quality 19-in. table model with a tube circuit. The battery is extra, at a rather stiff $88. But it's a silver-cadmium rechargeable cell that will take deep discharge without damage and can be recharged more than 50 times. It should last from three to five years.

Motorola engineers say they picked the best battery they could find even though it is the most expensive because they wanted to be sure the set's performance would not be compromised by battery malfunction. Recharging is automatic when the set is plugged into a 110-v. outlet.

Motorola uses transistors of its own make as well as those made by Texas Instruments and Philco in the 23-transistor circuit of the new set. The transistor "kit" costs Motorola about $32. This compares with $10 or $12 worth of tubes in an average TV set, not including the picture tube.

• **Low Maintenance**—Motorola believes the transistor set will sell well in fringe areas "because it is a very sensitive and carefully designed circuit." The reliability of the transistors and the lack of heat generating components, the company thinks, will minimize maintenance. All parts carry a one-year warranty. The set weighs 40 lb., including the 5-lb. battery pack.

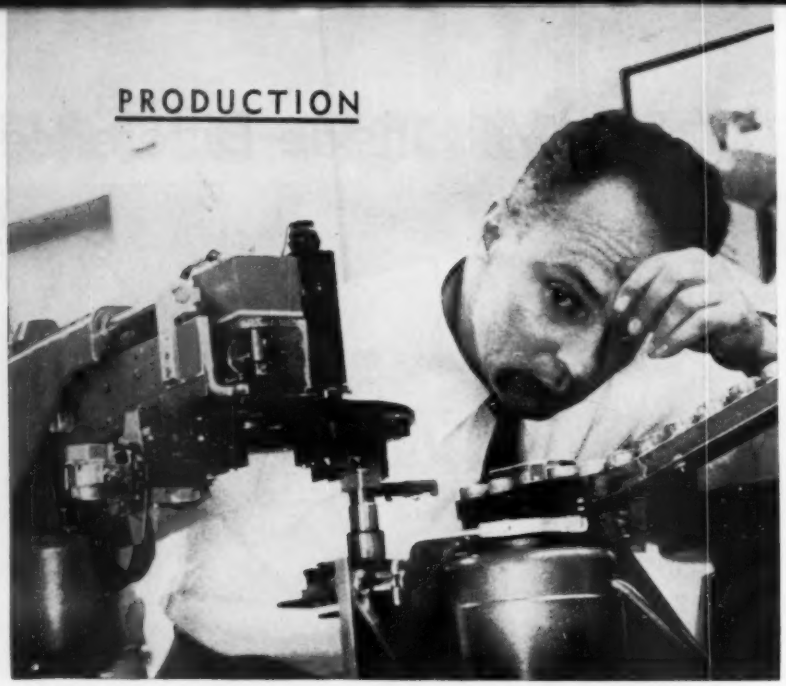
Tough New Coating for Paper

A water-based coating resin for paper is, National Starch & Chemical Corp. claims, easier and cheaper to apply than other coatings that provide water and vapor barriers. The coating resin, a specially compounded plastic called polyvinylidene chloride, is three to four times as effective as polyethylene film in barring vapor.

The resin is chemically inert and has met Dept. of Agriculture standards for use in contact with meats. National Starch believes it will be useful as paper coating for bleached board in food packaging, as a waterproof inert coating for milk cartons, and for other packaging applications such as potato chip boxes, bread wrap, and corrugated cartons that need water and grease resistance. The material is resistant enough to grease and oil for use in a paperboard container for automotive lubricating oils.

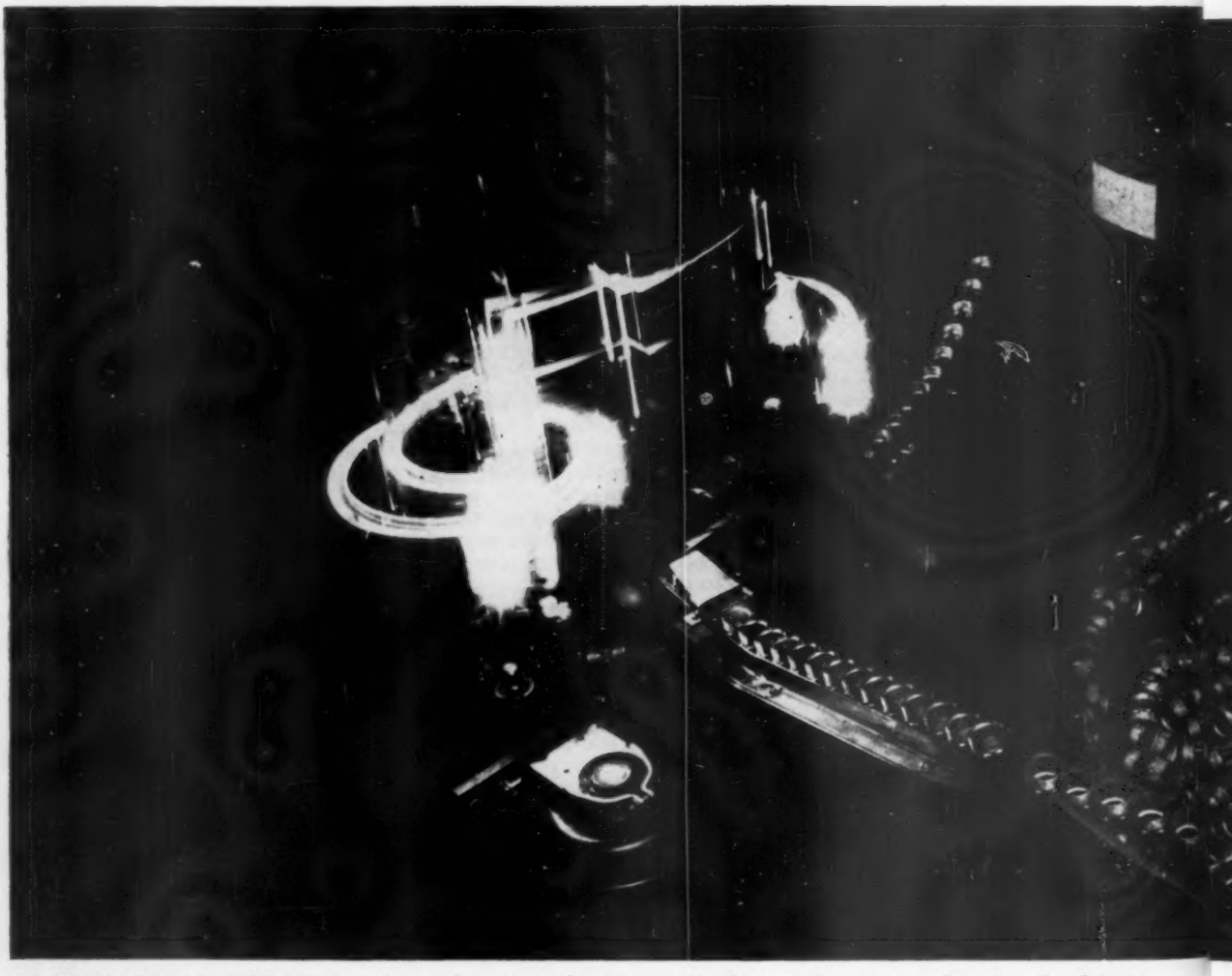
The water-based resin, like water-based paint, can be applied any number of ways. Standard high-speed paper-coating equipment now used by the paper industry can apply the resin.

National Starch is building a plant with a capacity of 14-million lb. per year in Meridocia, Ill., where the company is making polyvinyl acetate resin. Price of the resin is 45¢ per lb., dry. END



AUTOMATIC ASSEMBLY machine is adjusted at left to put together three parts in above picture. From nuts . . .

Tool Does



LIGHT ON ARM of TransfeRobot traces the complex motions the claw goes through in screwing nuts on ends of short threaded pipe.

. . . TransfeRobot is changed to do a different repetitive job. Engineer quickly changes to slightly different claws and . . .

. . . Resets the 15 rows of switches that program the machine. He uses template to guide his resetting of the robot for . . .

. . . Its new task of packing ping pong balls, a dozen to the box. Developers say machine could eliminate hand assembly.

Everything Except Loaf on Job

The men who designed and built the automatic machine at work in the photographs have a big ambition: They intend to make it possible for manufacturers to mechanize a broad range of assembly operations that are now strictly hand work throughout industry. They intend, in other words, to do for manufacturers what the developers of the automatic loom did for textile makers more than a century ago.

Their machine, called the TransfeRobot, has a number of parallels with the loom. It takes parts, as the loom takes thread, and puts them together methodically and repetitively into subassemblies or finished products, just as the loom interweaves its threads into a pattern of cloth.

The TransfeRobot is versatile. It can switch in a few hours from making doorbells to assembling toys, just as a loom can be switched from gray cloth to a heavy twill without expensive changes. Like the loom, too, the TransfeRobot would be used in large numbers, replacing assembly workers almost one for one.

• **Wide Market**—If it is successful, the TransfeRobot would almost certainly be a mass-produced piece of capital equipment like the loom. That's what makes it so attractive to its manufacturer, the Robodyne Div. of U. S. Industries, Inc., in Silver Spring, Md., on the edge of the District of Columbia.

Edwin F. Shelley, president of Robodyne and group officer of U. S. Industries, is convinced his machine will turn the trick.

"There is no reason," Shelley insists, "that manufacturers will have to use people for any simple, repetitive task."

He admits there are several good reasons that they do now, and he thinks that most approaches to automatic assembly have been uneconomic and unwieldy. But he is convinced that he is outdating the economics of using human hands for this work.

• **New Approach**—So far, he says, there have been too few tools available to manufacturers to do automatic assembly. Almost all of them have been special-purpose machines that require long lead times and heavy investment. Because of the rapidity of product changes, management is often reluctant to invest in automatic equipment unless it can guarantee savings that pay off the investment in six months or a year.

By taking a different tack, Shelley and his Robodyne engineers think they have overcome many objections to investing in equipment to automate a large number of assembly jobs. They think they can convince many manufacturers that it is worthwhile to pay $15,000 for a mechanical hand with a simple electronic memory and control system, which is essentially what the TransfeRobot is.

• **Limited Ability**—It's the blending of electronics and mechanical ingenuity that makes the TransfeRobot unique. Most transfer machines that move parts from one location to another or one processing step to another are essentially mechanical linkages. Many are very specialized and have to be junked when the product changes, just as the dies on a press are thrown out when the product design is altered.

Making a purely mechanical transfer mechanism involves designing and fabricating a specialized machine from scratch, and this usually takes consid-

erable time. Yet transfer machines are capable of only a limited number of operations. Usually they grab something, move it, hold it, and put it somewhere else. Their motions are limited by levers and gears designed specifically for the distance traveled and the size of the part.

• **Infinite Variety**—Where the TransfeRobot differs is in this: It can make an infinite number of motions of an infinite variety of lengths and, at command, grab, twist, or release whatever it is handling.

The only tool change required on the machine itself is the claw or fixture that does the actual grabbing. The assembly jigs to hold the parts that are being assembled can often be almost exactly like the ones used at an assembly station with human workers. And that's quite inexpensive tooling.

But even an electronically directed machine that can make an infinite number of motions is not particularly useful unless it can be programed to do a job over and over without requiring an electronics engineer.

The TransfeRobot's designers think they have that problem well in hand. In a few hours the device can be programed to do just about any job involving up to 15 complete cycles of its mechanical claw.

• **Setting the Dials**—The programing is done in two steps. First, the programmer—and since the job requires no special skill, it could be a shop foreman—sets up the general sequence of moves on a switch panel on the side of the machine.

There are 15 rows of switches, each row representing a sequence of movements. For example, one row of switches can direct the arm to swing right, extend, lower, grab, and raise. When the machine completes that sequence, the next row of switches puts it through another series of motions, and so on for as many as 15 rows. Then it starts over again.

But the switches only tell the machine the direction and nature of its moves. How far the arm swings, how high it rises, and how fast it moves are programed separately and almost as simply. The robot has a panel on the back with manual controls so that, once the switches have been set for the move sequence, the foreman can run the machine through its paces slowly, stopping it at the proper spot for each movement. The machine remembers electronically where it stops. After it has been run through a sequence manually, it will repeat the sequence automatically at high speed.

• **Fine Setting**—For many operations, a manual run-through is all that is required to teach the robot its job. But some assembly jobs, such as those requiring that two parts be pressed tightly together, demand greater precision than this.

For such delicate jobs, the TransfeRobot uses a special set of eyes. A tiny mirror, fastened to the jig that holds the part, catches a beam of light from the robot's arm and reflects it back to a photocell. The machine then positions itself precisely with respect to the mirror so the claw always returns to within a thousandth of an inch of the identical position.

Thus, it is possible for the machine to perform extremely delicate work at high speed—work that might require tweezer and magnifying-glass handling if performed by assembly workers.

• **Wider Capability**—In addition to its positioning chores, the TransfeRobot also has four main auxiliary outputs that operate other machinery used in conjunction with the robot, such as welding or eyeletting machines, automatic screw drivers, punches, feed mechanisms, or whatever operational tools are needed in the assembly process. For instance, when the machine puts a part in a welder, it tells the welder when to go to work.

Robodyne's Shelley believes his machine will be useful to a wide range of industries—from toys to electronic products.

"We don't really have any firm idea of what the total market might be," he says, "but we see the possibility that some manufacturers could put a thousand or so to work."

• **Cost Element**—But before that happens, the TransfeRobot is going to have to survive a lot of growing pains, and perhaps considerable price reduction. Right now, at $15,000, the payout justification of the machine is hard to rationalize. It is competing with the lowest paid labor on the force and is little more than a direct substitute for a single human worker.

On a single-shift basis, a payout figured in direct labor savings might take close to four years. And to show a profit, the write-off would be longer yet.

• **No Thinker**—The substitution of a TransfeRobot for a live worker might not be such a smart trade in every case. With all its electronic brains, the robot won't have the judgment of even the worst worker.

It may have trouble with defective parts, for example, which a worker would recognize and discard. Its electronic and electromechanical innards will have to be remarkably reliable or it will take a mob of highly skilled and highly paid maintenance men to keep it running.

Vibratory feeders and other special devices to hand the parts to the machine increase the investment required to put the machine to work. The robot can't, as a human can, reach into a hopper full of scrambled parts and pick one out, orient it, and assemble it to something else. The machine must be fed parts just so, or it will fumble.

• **The Answers**—Obviously, Shelley and his crew think they have answers to these objections. A lot will depend on the volume of production of the robots themselves. If they are mass-produced, their price would come down considerably. But before any volume orders come in, manufacturers are going to want to see long operating records that prove the machine's practicality, reliability, and economy.

There's the question of competition from other robots, too. American Machine & Foundry Co., for example, is one of the leaders in mechanical automation—its automatic pin-setter is a remarkable robot—and it has its eye on the same market that Robodyne is cultivating. AMF has been developing an all-purpose transfer machine for several years. Though it hasn't revealed details, its machine is going to be competition for the Robodyne product.

• **Production Plans**—So far, Robodyne has built only six TransfeRobots, all on a prototype basis. The company's present manufacturing facilities are skimpy, but it is building a large plant just outside Silver Spring. Most parts of the robot, such as electric motors and gearsets, will be purchased from outside suppliers, so Robodyne's work will be primarily assembly and engineering.

Shelley expects that accessories for the TransfeRobot will keep his engineering staff busy for years. "We don't intend to make only one tool," he says. "The TransfeRobot is only one of a family of devices we want to make."

• **Standard Tooling**—Eventually, Shelley believes, manufacturers will consider assembly tooling little different from other mass-production tools. Assembly heads and transfer mechanisms will be kept as stock tooling items, like various cutting tools for a drill press or milling machine.

"The thing is," Shelley says, "manufacturers have never been able to tool up assembly lines because the tools weren't available. If we can supply generalized standard tools and accessories that won't go obsolete with product design changes, there is no reason they can't be written off over longer periods of time just like general-purpose machine tools. In many cases, we think that the TransfeRobot will pay out even faster than specialized tools, because it can be put to work quickly and changed from job to job, so it isn't down for long periods."

• **Field Tests**—One of the big problems Robodyne faces is getting its machines tested under actual working conditions. It has made arrangements with four major manufacturers to put the first few machines to work later this year. **END**

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Clayton Weaver, *Superintendent (left), and* Forrest Holcomb, *Cracking Plant Operator, Leonard Refineries, discuss function of air supply in catalytic cracking and...*

How Cooper-Bessemer centrifugal compressor supplies big-volume air 'round-the-clock

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OPERATOR at new U.S. Steel plant decides on proper rolling sequence; punched tape and electronic controls do the rest.

Computer Is the Boss In Steel Rolling Mill

Even in this advanced day of automation, steel experts cling to the opinion that rolling red-hot hunks of steel into structural shapes is a job for a man with a well-trained eye—not for an electronic computer.

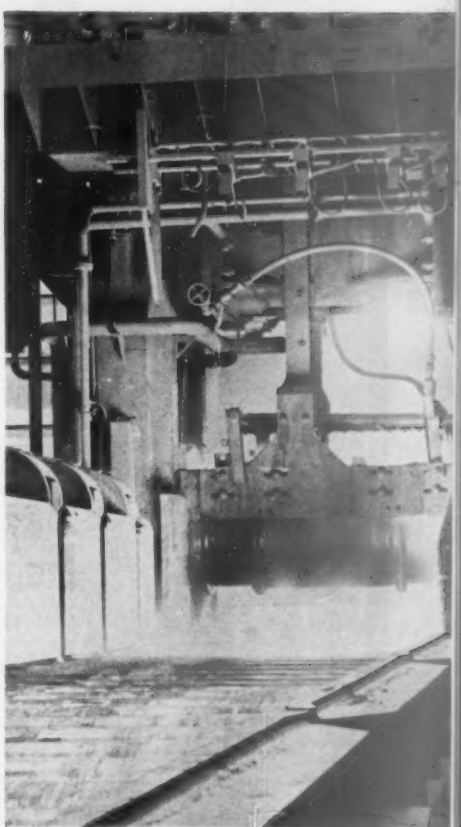
It's pretty difficult to teach a computer the judgment needed for the important decisions in a rolling mill—how to start rolling a yard-square ingot weighing close to 20 tons into a thin-flanged structural beam, how many passes it should take, what the rolling speed should be, how much "squeeze-down" there should be after each roll.

However, in the race to increase the output of rolling mills, steel companies have turned more and more to push-button operations. The trend has been to give routine control jobs to the electronic devices and leave the critical details to the operator in his air-conditioned control booth.

• **Faster, Simpler**—This month, U.S. Steel Corp. put into operation a new $120-million structural rolling mill at its South Works (Chicago) plant that marks another big step in the move toward automation. Basically, all the operator has to do is decide what kind of rolling sequence is needed. He punches this onto a card, and the mill's electronic director takes over from there.

The new South Works mill is probably the most automated in the country. Jones & Laughlin Steel Corp. has a mill controlled by punch cards (BW—Jan.12'57,p80), but it relies on the operator to initiate each pass of the red-hot ingot through the rolls. The main function of the electronic controls is to fix the number of passes and the amount of squeeze-down. U.S. Steel's mill, by contrast, has infrared sensing devices that tell the computer's brain when the hot slab or billet has completed one pass through the rolls and is ready to be shot back for another. By moving steel through the mills more quickly, these infrared devices minimize heat loss.

The rewards of U.S. Steel's automation are considerable. The mill is reportedly 25% faster than other layouts; its rolling speed is 1,500 ft. per minute. It boosts the plant's structural capacity 40%, doubles output of lightweight, wide-flanged structural members. In all, the new facility will turn



WHITE-HOT steel ingot moves through blooming mill, part of new $120-million facility that turns out structural shapes.

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out about 850,000 tons of wide-flange beams, standard structural shapes, sheet piling, and semi-finished billets.

• **Specifications**—The rolling mill, 1,700 ft. long, replaces three older mills. The layout includes soaking or heating pits, reheating furnaces, a blooming mill that begins the job of reducing ingots into workable units, a breakdown mill that completes the task, and a four-stand structural mill that rolls the steel into structural shapes.

The mill is the first with a "total concept" of automatic controls. Eventually, material will be handled automatically all the way from its arrival in ingot form to its departure from the plant as a finished product. At the moment, the mill is automated as far as the hot beds—the storage area for finished products. Eventually, there will be automatic gear to take it from there through straighteners, across transfers for inspection, shearing, piling, and loading onto transfer cars and then onto railway car or truck for shipment. Most of the transfers between rolling stands and holding areas will also be done automatically.

• **Controlling Variables**—Many in the steel industry, including Soviet technicians, believed that it would be impractical to build a mill as highly automated as U. S. Steel's. Because of the number of variables in steelmaking, they felt the controls needed would be too costly. For example, the number of passes varies with temperature. The rolling sequence also changes with the quality of steel—how much carbon and other alloying ingredients it contains. U. S. Steel solved these problems by taking slow-motion pictures of how a roller would tackle each situation manually. Then it programed the electronic controls to duplicate the manual technique.

The company says the new mill dramatically shortens changeover times. Whole stands containing the rolls through which the steel passes can be interchanged in 45 minutes or less. Previously, rolls were changed in the stands, and the job took 8 to 12 hours.

The new facility will probably employ as many men as its predecessors, but output per man has been increased 40%. There are practically no workers on the floor; most operating employees are stationed in small air-conditioned cabs directly over the rolling stands or in control booths. However, two or three times the present number of maintenance workers will be needed to run the mill efficiently—and this will offset the saving in operating crews.

Westinghouse Electric Corp. supplied the Prodac electronic director that runs the blooming mill. A General Electric computer, run by punch card, directs how the output from this mill will be rolled into the desired structural shape. END

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Assaying Ford's Steel Process

The industry awaits more data on radical speed-up of the open hearth. Company says its purpose is not to increase own production or to start selling the metal.

Ford Motor Co., which is a good deal more concerned about buying steel than making it, has unveiled a new steelmaking practice that has steelmen puzzled but intrigued (BW—May21'60, p40).

Even before they explained the technique, Ford people hastened to assure steelmakers that Ford neither will produce more of its own steel than it already does nor become a commercial steelmaker—and that it will continue to be one of the nation's principal steel buyers. Around Pittsburgh, though, that commercial reassurance was swamped by intrigued skepticism. Preliminary rundown on the development would have to include the following:

• Ford data showed 100% to 150% increases in the tons-per-hour rate of open-hearth steelmaking. That is simply too spectacular to be kissed off by any carbon steelmaker. If those gains could be accomplished routinely, they would render the open-hearth furnace vastly more competitive than it now promises to be in the future. And that's important because open-hearth investment represents more than 80% of U. S. steel capacity and output. But Ford claims, based on "more than 15 heats," offer no assurance that the process can be adapted successfully to every-day steelmaking.

• The development involves no new discovery. Instead, as is so often true in steelmaking, it combines some little-used "knowns" with some very modern equipment into a rather spectacular new practice.

• The new process isn't going to reverse Ford's fundamental policy against further expansion in steelmaking. Consequently, if the technique ever becomes a complete commercial success at Ford's steel division, it will bring about the dismantling rather than expansion of some existing capacity there.

I. No Breakthrough

The essence of the Ford development is that its open-hearth people use Btu's the way the Russians use artillery—massed in overpowering volume. They're melting scrap almost as fast as they charge it, hence can start making steel within minutes after they've completed charging scrap. If that sounds too simple to yield such spectacular boosts in the tons-per-hour rate, ponder this:

The Ford process yields finished heats in the time—three hours—that most U. S. open-hearth furnaces require before charging blast furnace iron, which begins steelmaking.

In conventional open-hearth steelmaking, a fast charge of stone and ore starts the cycle, followed by the charging of scrap. After about three hours of meltdown, molten blast furnace iron is added, and only then does steelmaking proper begin. A more recent development, dependent on the all-basic-brick roof and high-volume, low-cost oxygen speeds up heat time no end by injecting oxygen into the bath through roof lances. Now, Ford is speeding up melting so much that hot iron follows scrap immediately.

• **Three Specifics**—Ford uses three specifics to accomplish this. First, it's charging scrap faster than is conventional. There are enough variables in scrap-charging to mean that the 45 minutes Ford claims for a 200-ton furnace with a 50-50 ratio of scrap to hot iron isn't unheard of, fast as it is. But there isn't an open-hearth man alive who wouldn't be proud to do it. And there aren't very many at all—in Pittsburgh, anyway—who can imagine that the bitter realities of continuous operation would let it be accomplished at all regularly. Even so, Ford says its charging practice is wholly conventional.

Fast charging is critical but the real secret is the way Ford socks the heat to it. Here it not only uses oxygen roof lances; Ford also fires natural gas with the oxygen through the lances—a wholly new wrinkle—and it uses oxygen to enrich its end-burners. This gives Ford four chances, instead of just one, to put heat into the scrap it charges so handsomely. As a result, one Ford man describes the meltdown cycle as "almost like melting ice with a torch."

The third specific in the Ford process is the substitution of burned lime for limestone in the original charge. This, too, alters the heat balance in favor of very high speed scrap meltdown and shortens the time required.

II. Lots of Headaches

When they try to assess all this, commercial steelmakers start with Ford's charging times. There isn't much you can do that's new and spectacular in charging, and it's fundamental that you always charge as rapidly as you can. Unless Ford has something strikingly new—and Ford vows it hasn't—open-hearth men tend to disbelieve you can charge 100 tons in 45 minutes continuously and as a matter of course.

There's less puzzlement—but more awareness of some fundamental engineering problems—when the outsiders ponder Ford's very high firing rates. Immediately, these raise the question of refractory life. Ford says it has no indications that its process will shorten lining life too severely. But its people agree that they do not yet begin to have the data you would want before you could conclude that the process will not drive the pounds-of-refractory-consumed-per-ton-produced impossibly high.

Perhaps surprisingly, commercial steelmakers don't seem to boggle a bit at Ford's oxygen consumption figures; a conventional roof-lance heat will use about 600 cu. ft. of pure oxygen per ton, and perhaps 250 cu. ft. more if the practice calls for end-burner enrichment. Ford uses 1,500 cu. ft. per ton.

• **Burned Lime**—Substitution of burned lime for limestone is still another equation that will have to be solved separately for every open-hearth shop. Ford pays $20 for burned lime, but only $2.50 per ton for limestone. Pittsburgh pays $4 for stone, and agrees with Detroit that a ton of lime yields 1.8 times the chemistry available in a ton of stone.

In other words, stone costs, as well as oxygen costs, go up about 250% in the Ford process. Fuel costs rise also and refractory costs seem likely to rise. Against this, you stand to double or to raise by 2.5 times the tons-per-hour rate on a furnace which probably carries an overhead burden of about $75 per hour and whose 12-man crew will average better than $4 per hour in total employment costs.

III. Ford's Future?

Some years ago when Ford was reorganizing, and concentrating on autobuilding, it decided not to expand steel capacity.

Now its new open-hearth process, if commercially successful, will create a pronounced bulge right in the middle of its carefully balanced steelmaking cycle. To capitalize on it fully would require heavy new investment in raw materials, in iron smelting and in steel finishing. Here's why Ford doesn't want to do that:

• Unless Ford intends to become self-sufficient in steel, it could only strain its relations with commercial steelmakers by so vast an expansion.

• For Ford to become self-sufficient in steel would demand so diverse an array of finishing equipment that it could support the investment only by entering the commercial steel market with a number of products. **END**

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In Labor

• • •

Will the Show Go on? Mediators Seek To Avert New York Actors Strike

The theater's tradition that the show must go on may be tested in New York City next week. Labor contracts between the League of New York Theatres, Inc., and Actors Equity run out May 31. At midweek, bargaining was deadlocked—and strike talk was to be heard on Broadway.

The theater is an important segment of the city's economy. Mayor Robert Wagner appealed to both sides to settle their dispute and assigned mediators to help them do it. But the greatest hope appeared to be in the traditional reluctance of the profession to see theaters blacked out.

Equity is asking for an increase ($103.50 to $120 a week) in the minimum salary for actors and for a pension-welfare plan to cost producers an estimated 7% to 10% of payroll. The union contends that producers can meet the cost of its "just" demands without lifting ticket prices.

The League argues that this can't be done. By its figuring, tickets now averaging $6.90 to $8.05 for best seats would have to go up to $9.60 to $11.50. Also, it says, any pension-welfare concession to actors would bring on "prohibitive" demands from other theatrical unions.

Statistics were batted back and forth in this week's negotiations. **One eye-opener: Producers and their backers say they lost $6.3-million of a $9.7-million investment in shows during the 1959-60 season.**

• • •

AFL-CIO Complains That Management Sends Lower Echelon to "Summit" Talks

"We had a completely amicable and reasonable discussion," top-level spokesmen for labor and management reported the latter part of last week, after their first conference on a course toward smoother relations between employers and unions.

They announced through George Meany, AFL-CIO president and the conferees' spokesman, that further discussions are planned "at the earliest opportunity," but probably not for six or eight weeks because of prior commitments.

Thus a first meeting under inauspicious circumstances ended—not unexpectedly (BW—May21'60,p51)—without decisions on labor-management problems but with both sides willing to keep talking.

On the surface, this may seem to be a faint promise of some future progress. However, labor is as unhappy as before about the men named as industry's spokesmen—its leaders say the management choices are not operating heads of major companies.

In collective bargaining, union officials often meet with employer negotiators they criticize as lower echelon, but the union people do not bargain with them; they only go through the motions. There is a very real threat that this might happen in the current conferences.

MORE NEWS ABOUT LABOR ON:

- P. 127—Work rules cloud rail prospects.
- P. 129—Hoffa seeks anti-monitor law.
- P. 133—A higher salary for the right man.
- P. 134—Engineers say no to unionization.

• • •

Chief of Locomotive Engineers To Retire in Favor of Davidson

Guy L. Brown, 66, will retire as grand chief engineer of the 70,000-member Brotherhood of Locomotive Engineers July 31, but **the change in BLE leadership won't affect the fight by the BLE and other operating rail unions against revisions in work rules** (page 127).

Brown, long a dominant figure in railroad labor, will be succeeded by Roy E. Davidson, 58, first assistant chief of the BLE for the past seven years and also a staunch leader in the brotherhoods' stand against rules revision.

Brown's term runs into 1962. He said his decision to retire in July was prompted by "my health and Mrs. Brown's."

• • •

Special Committee Hopeful of Working Out "Progress Sharing" Formula at Kaiser

The tripartite committee set up under the Kaiser Steel Corp.-United Steelworkers contract last October is making "substantial headway" on a number of questions assigned to it, but it is highly unlikely that a July 1 deadline for a "progress sharing" formula will be met.

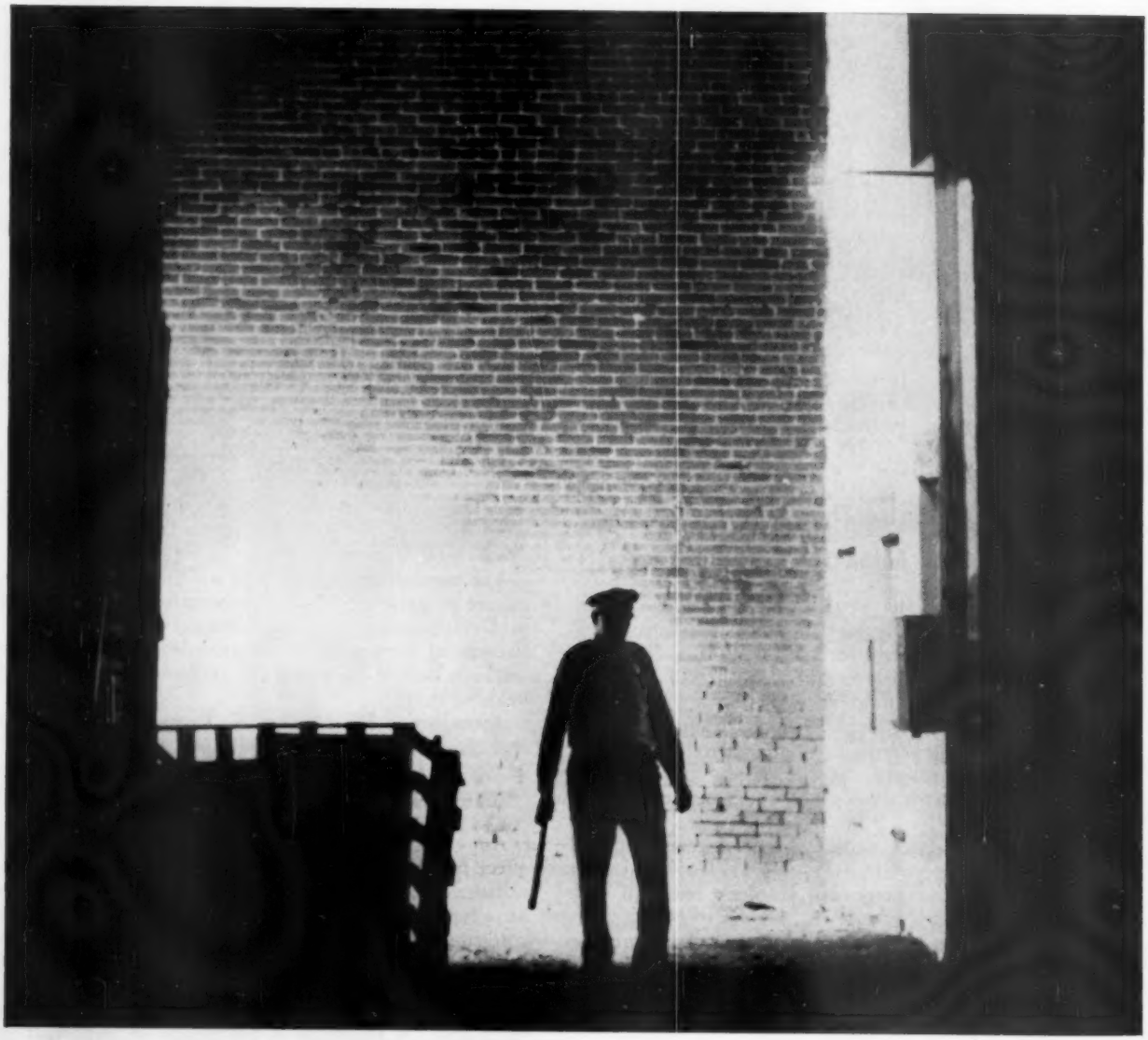
The committee met recently on the West Coast, to receive progress reports from subcommittees working on problems caused by past technological changes, the effectiveness of present grievance procedures, and incentive methods now in effect. These are three of seven broad fields of study.

According to Dr. George W. Taylor, public member and chairman, **the group "really got down to specifics" in two days of meetings. As a result, the committee is "increasingly confident" that in time it will be able to work out ways of at least minimizing labor disputes.**

An average 8.6¢-an-hour wage increase will go into effect July 1 for Kaiser employees unless the study committee comes up with a mutually acceptable formula for an alternative "equitable sharing of the fruits of the company's progress" before the end of June. That's been a deadline (BW—May14'60,p103), but there's little chance that it will be kept.

Dr. Taylor suggested that it wouldn't when he said a week ago: "A timetable is not nearly so important as coming up with a workable solution. We've still got a lot to do, but we think we are going to come out with an answer."

How to arrest



a transient

In police work, transients are comparatively easy to find and arrest—because their behavior and habits follow recognizable patterns.

But in scientific work, "transients" are displays of fleeting electronic phenomena—erratic and unpredictable in behavior—such as the action of a missile control in hypersonic flight, or the behavior of current in a complex electronic circuit.

The traditional tool for seeing recurring electronic phenomena has been the oscilloscope. This device presents an event in the form of a wave—a glowing line on a vacuum tube. Unfortunately these important events often happen only once, and with a conventional oscilloscope the transient wave is gone as quickly as the event.

So, Hughes engineers invented a new type of "picture tube"—capable of freezing, or arresting, these waves indefinitely. Thus fleeting phenomena can be stopped and studied.

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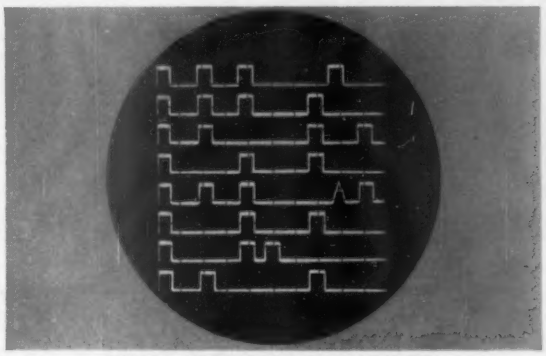

WHICH TRACE HAS THE TRANSIENT?

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Work Rules Cloud Rail Prospect

● **In 1960 contracts, peace via binding arbitration on wages is near for Engineers.**

● **Non-operating brotherhoods are not that close to signing, but an accord on pay seems likely.**

● **But the carriers' hotly controversial demand that work rules be relaxed is yet to be discussed, and may even lead to a strike.**

The pattern for 1960 railroad wage settlements is expected to be set—peacefully—in the next two weeks by an arbitration award and emergency board recommendations in two key disputes. However, hard bargaining and a possibility of strike action still cloud railroad labor-management relations.

Hotly controversial work rules questions have not been brought up yet. They will be as soon as wage terms are completed. A tense deadlock is expected, perhaps into 1961.

• **Indirect Effect**—Wage decisions now being made will have no direct bearing on rules questions, although they may affect the opposed labor and management positions indirectly. If carriers succeed in their strong campaign to hold down further advances in wage costs, demands for rules concessions may not be pressed quite so urgently. Substantial gains might make the unions more amenable to a study commission.

This week, neither side appeared confident of a major gain as:

• Arbitrators in a wage case involving the Brotherhood of Locomotive Engineers and major carriers wound up hearings under way since Apr. 5 and prepared to hand down a binding wage award within the next few days, probably about June 1. They can take longer; their deadline is June 10.

• A Presidential emergency board in a wage case involving 11 nonoperating unions with a half-million members prepared to close hearings that began Apr. 26, and to draft a report and recommendations to be submitted to the White House on or before June 8. The recommendations will not be binding on the parties.

Ordinarily, a Locomotive Engineers wage settlement establishes a firm pattern for contract terms in agreements between other operating brotherhoods and the railroads. Wage negotiations covering firemen, conductors, trainmen, and other operating crewmen have marked time while the engineers' case was argued before the arbitrators.

• **Pros and Cons**—The BLE sought a 12% wage increase and the continuation of a cost-of-living "escalator" clause in a new contract with the carriers. The roads countered with a proposal for a 15¢ an hour cut in engineers' pay and asked for the elimination of a c-of-l clause.

In weeks of arguments, BLE spokesmen contended that pay increases for engineers have lagged behind those granted in other industries in recent years, and that higher productivity has offset improvements obtained by engineers up to now.

The carriers argued just the opposite before the six man arbitration board; they protested that earnings of locomotive engineers have led those of manufacturing employees generally, while rail "value productivity"—as contrasted with "physical productivity"—and revenues and profits have declined steadily. The BLE uses the latter measurement of productivity, which shows a gain.

In closing days of the hearings, the carriers' spokesmen also argued:

• Although the roads' postwar fortunes are strikingly similar to those of the depressed 25% of manufacturing industries, the carriers are on a level with the "bonanza group" in manufacturing industries as far as labor costs are concerned.

• On the mileage basis of pay for road operating employees, passenger and through-freight engineers are paid for about twice as many hours as they actually work.

• Passenger engineers now rank second to executives and general officers and their assistants on the basis of annual earnings—and outrank even the executives on the basis of straight-time hourly earnings only.

• **Surprise Move**—The BLE surprised the industry early this year when it accepted arbitration of wage demands. The engineers submitted a wage issue to arbitrators in 1954 and were disappointed by the award. Sharply critical of it, the union said then that it would never again agree to arbitration of a national labor dispute.

Questioned about the change of policy, BLE's retiring Grand Chief Engineer Guy L. Brown (page 123) commented, "Only fools won't change their minds." But he and other BLE spokesmen made clear that another disappointment would mean no more arbitration on wages.

Archibald Cox, Harvard University law professor, is chairman of the arbitration board. Richard A. Lester, Princeton University economics professor, is the second neutral on the tripartite board.

• **The Nonops Case**—The carriers and engineers agreed to accept binding arbitration of their wage dispute. The nonoperating unions and roads refused to. Under the Railway Labor Act, the President designated an emergency board to study the issues in their dispute—and make any necessary advisory recommendations.

Either party can turn these down. If either does, a strike is possible—and would be legal.

The nonoperating unions want a 25¢ an hour wage increase and additional "fringe" benefits. Unlike the BLE, the off-train unions are willing to drop a cost-of-living clause in return for the right to seek contract changes at any time they might be warranted. Present provisions for c-of-l adjustments in pay are a quid pro quo for a moratorium on contract changes except at specific times.

The carriers are taking a hold-the-line position against any wage increase.

• **Work Rules**—Rail bargaining this year was split into two parts—first wages, then work rules. Up to now, the only discussions between the unions and carriers on rules has been on an exploratory basis and has involved individual unions and roads. There have been no negotiations on a nationwide basis, the way actual settlements are customarily worked out.

A key negotiator for the carriers said in Chicago a few days ago that the parties intend to get to the work rules problem "as soon as we can get to it," or after the engineers' arbitration and nonoperating union wage dispute can be cleared away.

Although an operating brotherhood official predicted recently that controversy in the "vastly complicated" area of work rules might go on for two to three years, the carriers' spokesman scoffed at the possibilities of any protracted deadlock.

It should take considerably less than a year to ferret out points of agreement or disagreement, he suggested, and added: "It might not take so long. We'll either get down to business, with

A "slightly" exaggerated portrayal of resourceful Vice President Walton Romefelt on his way through Smuggler's Notch to customer counseling in Vermont

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some results, or we'll be getting an emergency board."

Earlier this year, the carriers suggested turning over the rules dispute to a study commission. The unions refused to submit to factfinding.

• **Procedure**—The five operating brotherhoods are expected to join efforts in bargaining with carriers on work rules in which all have an interest, such as management's demands for:

• The lengthening of the basic work day (on a mileage basis) from 100 miles to 160 miles.

• The "co-mingling of work," that is, a requirement that road men must do certain yard duties when they have completed scheduled road work but have time left over.

• The elimination of rules that bar operating crews from staying with their train beyond crew-change points—regardless of how far they have gone.

• And, among others, the elimination of rules that specify the number of operating crewmen required on a given run—regardless of actual needs—or that prevent the carriers from making crew assignments in some circumstances.

Unions would negotiate separately on rules that have limited application—on the carriers' demand for the elimination of some diesel firemen, for instance.

• **Active Front**—In other disputes:

• The National Mediation Board prepared to resume efforts in a dispute between carriers and the Brotherhood of Locomotive Firemen & Enginemen over a 14% raise and c-of-l clause.

• The President barred a Switchmen's wage-fringe strike against western roads for 60 days by naming an emergency board.

• An injunction barred a Transport Workers strike against the Pennsylvania Railroad over automation and job cuts, the Pennsy says the union is attacking "management prerogatives."

Hoffa Seeks Anti-Monitor Law

Teamsters leader gets surprisingly little opposition to his maneuver to get around court control by asking Congress to pass a law. But that doesn't mean Congress will do it.

When a federal court set up a monitorship over the International Brotherhood of Teamsters two and a half years ago, even union leaders who favored attempts to rein in Teamsters Pres. James R. Hoffa were wary that a precedent was being set for court intrusion into labor affairs.

Their concern stirred heated debate in AFL-CIO's ruling executive council. Labor's leaders argued at that time whether they should publicly condemn the court-ordered monitorship, even though they had led the fight for the truck union's expulsion from the federation on grounds of corruption.

In the end, the decision was to sit tight and wait. AFL-CIO hoped the monitorship might accomplish what the federation had failed to do—unseat Hoffa as president of the Teamsters.

• **Invited Court**—There was much less concern at Teamsters headquarters. Hoffa and other Teamsters officials had suggested court intervention as a way out of their troubles. Elected at the Teamsters 1957 convention, Hoffa and his allies were blocked from office by a court suit that charged the election was rigged. Teamsters rank-and-file plaintiffs and the defendants agreed, in the court room of Federal District Judge F. Dickinson Letts, that a system of court-appointed monitors would be set up to oversee union leaders. Thirty months later, the monitors are still there.

I. Congress Reacts

Last week, the Teamsters, long since disillusioned by the arrangement, asked Congress to eliminate the court control.

AFL-CIO Pres. Meany, who spoke out for the first time on the issue, asked Congress to leave it alone. If it ever had been a threat to organized labor, he said, this had long since passed.

Nobody underestimates the versatile Jimmy Hoffa; even so, the move on Capitol Hill came as a surprise, and it got some substantial support. Hoffa was, in effect, bearding the lion; he had last appeared before Congress as a defendant in a series of hearings before Sen. John McClellan's labor rackets committee.

Hoffa did not appear personally last week, but a half-dozen congressmen backed his anti-monitorship views in hearings before a House Judiciary subcommittee headed by Rep. Edwin C. Willis (D-La.).

• **Support for Hoffa**—They introduced identical bills that would amend the Norris-LaGuardia Act by prohibiting courts from appointing monitors or other supervisors over the affairs of any labor union. Thus, Hoffa was asking Congress to undo one of the biggest mistakes he ever made. He mustered support not only from some Congressional quarters but also from a number of AFL-CIO affiliates.

Representatives from the Machinists, the National Maritime Union, the United Textile Workers, the Upholsterers, the Flight Engineers, and the Meat Cutters & Butcher Workmen all backed the bills to kill the monitorship. One spokesman, Isadore Katz, United Textile Workers attorney, argued that the rights provisions in the 1959 labor reform law eliminated the need for the Teamsters monitors.

In the Senate, although no bill had been introduced there, Republican Sens. Homer Capehart of Indiana and Styles Bridges of New Hampshire questioned the continuing need for the monitorship. They were backed by Democratic Sen. Wayne Morse of Oregon.

• **Moneyola**—At the subcommittee hearings, Rep. Elmer J. Holland (D-Pa.) coined a new word—"moneyola"—to describe Teamsters financial support of the monitors. He said the monitorship looked like a plan to bankrupt the Teamsters, which pays the bills.

Rep. William C. Cramer (R-Fla.) noted, however, that Hoffa had agreed to finance the monitors in the January, 1958, court settlement.

• **Meany Talks**—The only opposition at the hearings, except for remarks by some committee members, came from Meany. He did not appear, but wrote to Committee Chmn. Willis, and his letter was read into the record.

Meany commented that the immediate purpose of the bills was to free the Teamsters of the monitorship they had agreed to in the first place. He said that Congress might want to legislate against any abuse by the judiciary "but it is something else again for Congress to intervene for the purpose of affecting the outcome of a case."

Meany doesn't see the system as a threat to other unions. He said he had uncovered "no evidence that the federal courts have engaged in any comparable abuse of their power to appoint receivers or monitors, or otherwise undertake to supervise the administration of labor unions."

"Certain of the litigants," he went on, "are simply seeking to be relieved of the consequences of their own bargain."

And, he added, "Most labor people . . . strongly oppose the assumption by a court of any such board supervision over the administration of a union as is involved in the Teamsters monitorship. The Teamsters monitorship is thus not a precedent. . . ."

The subcommittee recessed hearings this week but plans to resume them as soon as opposition witnesses are ready to appear. At this point, only Sen.

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John L. McClellan has said he wants to appear against the proposal. A committee staff member says the hearings will begin again "when we can get two or three witnesses."

II. Hoffa's Persuasion

The apparent paucity of anti-Hoffa witnesses doesn't mean that Congress is ready to buy the anti-monitors measure. Hoffa's past experiences before the McClellan committee haven't been forgotten. The mildness of the protest merely indicates that opponents feel there's not enough hope for the proposal to get excited about it.

Nevertheless, the fact that legislative proposals are in the hopper is an achievement for the truck union chief. It was made possible by the Teamsters' powerful political influence and, in part, by a shift in the atmosphere that surrounds the Teamsters president.

• **Less Threat**—When Hoffa sought to eliminate the monitors by legislation, he already had them on the run in the courts. The monitor board, headed by Chmn. Martin F. O'Donoghue, no longer supports O'Donoghue's opinion that Hoffa must be expelled before the monitors can bow out.

O'Donoghue's attempt to bring Hoffa to trial on charges of mishandling Teamsters funds has been blocked by the Court of Appeals. The trial, if it comes off at all, will not open until fall.

Hoffa, thus, does not face any immediate threat from the monitors. But neither he nor other Teamsters officers will be free of court control until the monitors are removed.

Hoffa is attempting to get legal sanction for a new convention so that new elections can be held—and his "provsional" status can be removed He is confident of reelection, and he offers to have the election conducted under any rules by the court or the Landrum-Griffin reform law.

Higher Salary for the Right Man

Most-wanted workers—the technical and professional people and good secretaries—get a better break in starting pay. Gains still parallel those of blue collarites.

"A year ago, we were scattering out job resumes like buckshot and getting only an occasional answer. Now, suddenly, companies are coming to us."

That is how the head of a Midwest technical employment agency describes the current job market. Mrs. June Armstrong, president of Armstrong Personnel, Inc., of Cleveland, also adds that salary offers are now running higher.

BUSINESS WEEK reporters checking with state employment officials, private job placement agencies, and top personnel executives around the country also found the salary outlook much brighter today. Specifically:

• Starting wages are up, especially so for technical and professional people as well as for those in sales and marketing. Competent secretaries and stenographers, too, are getting a better break in starting salaries. But male white-collar office workers aren't doing so well.

• Middle management salaries are rising, but not so sharply as salaries at lower levels. However, employers are making up for this by improvements in fringe benefits—better insurance protection, pensions, expense allowances, the use of a company car.

• The rate of increase in salaries continues to parallel that of blue-collar wage earners (BW—Aug.8'59,p56).

• **Ahead of the Pack**—The most noticeable increases, say personnel experts, are among the starting salaries for college graduates and for professional placements. A Ph.D. engineer can start at $900 a month in Cleveland, for example, as against $775 last year. Mechanical engineers pull down $525 to $550 to start against $500 a year ago. In St. Louis, employment agencies report engineers' salaries, especially those of electrical engineers, are moving up, ahead of the pack. Starting salaries average around $500 a month, with some graduates reporting new offers at $600.

In placing a professional worker in another job, the employment agencies are getting higher salaries for their clients this year than last. Mrs. Armstrong reports trying to place a 36-year-old applicant with a Ph.D. in chemical engineering and an M.A. in business administration. He was after a job in the $16,000-$20,000 bracket. "Last year," says Mrs. Armstrong, "I couldn't get a nibble, so he ended up placing himself with a New England manufacturer at around $20,000. But within the last few months, I've had two very strong offers for this man at about $25,000. . . ."

She estimates that chemical engineers in Cleveland are doing 16%-25% better today over the last year and a half.

"Since last September," notes Mark McCollough, labor analyst for the Cleveland district of the Ohio State Employment Service, "there has been a little more demand and higher salary offers for white-collar people." But, he adds, "What salary increases we have observed don't follow any consistent pattern within job classifications." And, companies are still choosy although they may offer more for people they want.

"Companies are willing to pay more to get a competent guy this year," says John Powers of Cadillac Associates, Inc., a large Chicago white-collar placement agency. Powers' sentiment was echoed around the country.

Cadillac reports substantial pay raises in sales and marketing, with supervisors getting 17% over last year. General cost accountants are pulling down more money. In the Chicago area, they are getting $6,000 to $8,500 a year as linemen and $10,000 to $13,000 as supervisors, a 10% increase over 1959.

• **More Fringe Benefits**—The lift in middle management salaries has been tempered by fringe benefit gains among salaried workers. As a vice-president of a Salt Lake City steel fabricating firm points out, "The major boost to white-collar workers, especially those up a notch or so from the clerical help, have been in fringe benefits: expense accounts, a company car, and so on. Salaries haven't jumped tremendously, but a man's take-home benefits are much greater."

• **Clerical Workers Gain**—Employees just below this group—secretaries, stenographers, office-machine operators, and file clerks—are doing better this year than last. Banks, insurance companies, and credit firms in Atlanta are hiring stenographers at $325-$350 a month. Last year, they would have started at $300. An office clerk starts at $250-$260 as against $225 a month a year ago. However, the job market apparently isn't so lively for male office workers.

Personnel men wax bitter about "the low caliber office workers the high schools are turning out." One Philadelphia man interviewed 25 girls for typists' jobs and not one could type 35 words a minute. Not only that, but one applicant who couldn't hit the minimum word rate asked for $65 a week. Flabbergasted, the interviewer inquired why she was asking so much. She replied, "My high school counselor told me to."

• **Not Enough**—Despite the brighter salary outlook, few placement agencies feel that the jump is sufficient to close the gap in the rate of salary gains as against the rate of wage boosts. The two rates have moved in parallel over recent years. And, the job placement people don't see anything in the picture changing this. END

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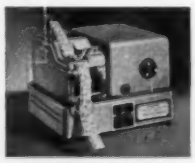

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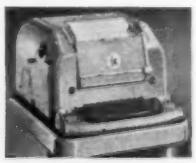

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Engineers Say No

They reject unionization at Western Electric. And NLRB lumps with them many technicians who lack degrees.

Efforts to extend union membership further into professional ranks received a sharp setback recently as engineers employed by the Western Electric Co., Inc., voted substantially against unionization.

The National Labor Relations Board last week announced that WE engineers rejected representation by the Council of Western Electric Professional Employees, an affiliate of the Engineers & Scientists of America, by a 3,970 to 2,603 vote. The election that covered 6,750 engineers employed by WE nationally and abroad was the largest ever conducted by NLRB among professional employees.

NLRB polled engineers in 10 occupational fields at 51 WE locations in 14 states, by mail in 20 overseas sites.

• **Two Effects**—It was particularly significant for two reasons:

• The board ruled, unanimously, that employees should be classified as engineers on the basis of the work they do rather than "merely their individual qualifications, background, and experience." This means that technicians who do not have engineering degrees but do engineering work may be considered to come under the professional employee definition in the Taft-Hartley act—and, if they choose, to be outside the jurisdiction of production unions.

• Engineering and other professional societies have been given new, strong encouragement for campaigns to keep professional workers out of unions; the societies contend that unionization cannot be reconciled with "the universal concept of professionalism."

The Western Electric campaign by the Council of Western Electric Professional Employees developed first into a major test of the status of engineers as professional employees and a part of management, then of the issue of unionization vs. professionalism.

The Council was first certified as bargaining agent for WE engineers in 1952. It has had ups and downs ever since. About a year ago, a dispute over what constitutes a professional engineer disrupted negotiations toward a fourth one-year agreement by the Council and Western Electric.

The labor organization asked for an election to redefine the bargaining unit—charging that the company was attempting to undermine the Council by considering as engineers "subprofessionals . . . ineligible for Council mem-

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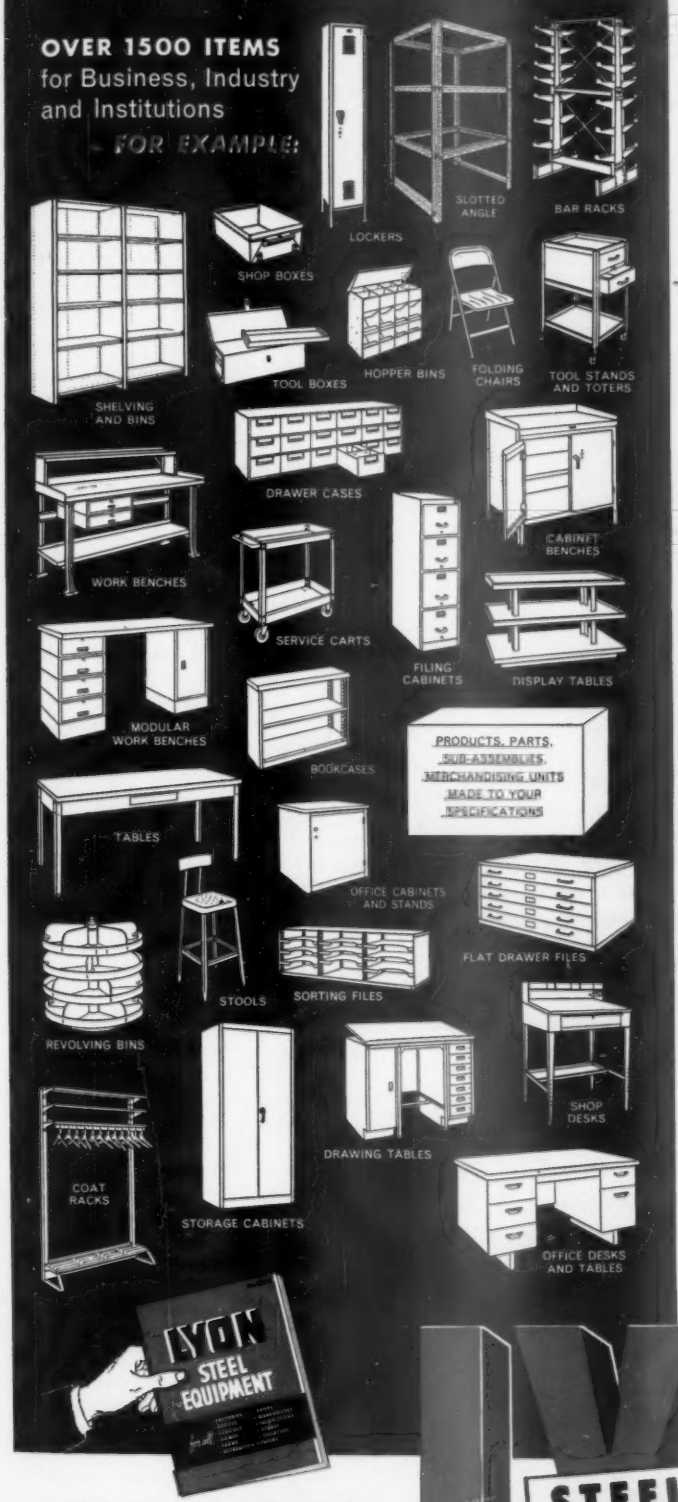

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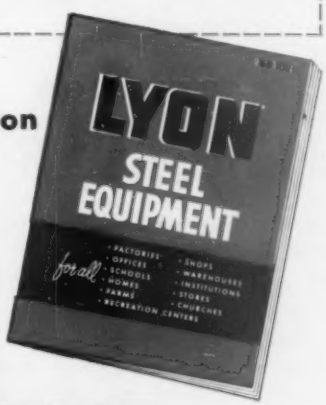
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bership [but] assigned professional engineering work." The Council asked that educational and experience requirements be used to determine professional status.

• **Professionalism**—The steadily rising professional employment in industry made this argument and others in the Western Electric case highly important for NLRB. The board held hearings that continued for more than a year and filled 4,000 pages of testimony. Finally, on Mar. 28, it decided unanimously that the WE vote should be on the basis of the work assigned and performed, not merely an individual employee's background.

Under Taft-Hartley, a professional employee is defined as one with "knowledge of an advanced type," ordinarily obtained by completing "a prolonged course of specialized intellectual instruction and study in an institution of higher learning . . . as distinguished from a general academic education or from an apprenticeship."

The decision in the Western Electric case broadened the definition usually followed by the NLRB. If it is adhered to, more employees doing professional work requiring "knowledge of any advanced type"—but who have no specialized degree or license—may find the way clear to break with production workers' unions. Under the federal law, professional employees can be represented by a union of nonprofessional workers only if a majority of the professional employees vote to be included in the nonprofessional unit.

• **Intervention**—The National Society of Professional Engineers, not a union, followed the Council-WE tussle with close interest, and intervened several weeks before the NLRB election. An open letter to Western Electric engineers urged a no-union vote. It said that unionism had been given a fair trial—and found wanting. The letter brought the unionism vs. professionalism issue into the open.

This became a factor in the election. When the Council lost, NSPE hailed the vote against the union as "additional confirmation that the industrially employed engineer of today prefers a professional approach toward engineer-management relations, rather than that offered by unions."

Harold A. Mosher, president of the National Society of Professional Engineers, added that "this victory for professionalism will set the stage and serve as an example to industrially employed engineers everywhere." He said that the vote will assure "a continuation of the trend away from unionization of professional engineers."

Mosher said the NSPE will step up efforts on behalf of engineering professionalism—against unionization—along with other professional groups. **END**

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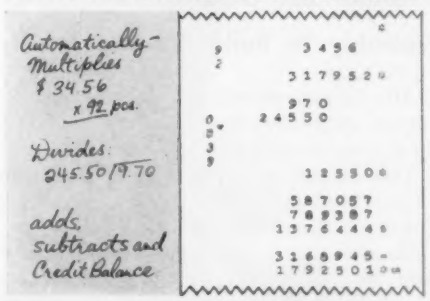

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Soviets Try to Woo Ghana Project Away From Kaiser Organization

The Russians are trying to take over the Kaiser organization's part in the big Volta River hydroelectric project in Ghana (BW–May2'59,p75).

This became known after Ghana—**a prime political target for the U.S.S.R.**—sent a high-ranking parliamentary delegation to Russia. After the group arrived in Moscow, it was shown Soviet projects on the Volga River and then sounded out on prospects for Soviet help on the 512,000-kw. Volta project.

The Ghanians, favorably impressed, said they would present a report to their government after returning home. Terms were not discussed, but it was assumed that the Russians would offer their usual long-term credits at 2.5%, repayable 12 years after deliveries.

Initial reaction from Kaiser officials was that there is little to worry about at present. "Things can always change," a spokesman said, "but our arrangements are pretty firm now and we expect to carry through to the project's completion."

Indeed, Kaiser has an almost indelible stamp on the project. **Kaiser Engineers Div. already has men in Ghana under a $2-million contract doing preliminary site work, such as road construction.** Kaiser expects to take over general direction of the $173-million project after the World Bank extends a loan it is now preparing to offer.

In addition, Kaiser Aluminum & Chemical Corp. has formed a subsidiary, Volta Aluminum Co. (Valco), which is negotiating with major aluminum companies to form a consortium to operate in Ghana. And it was Kaiser Engineers that surveyed the Volta project and proposed establishment of an aluminum industry in conjunction with it.

It was reported that the Soviets also are offering to supply Ghana with technicians for mineral exploration and processing.

• • •

Russians Sell Gold in Europe Again, Probably to Build Sterling Funds

After a nine-month lull, Russia is back on the gold market, with sales estimated at $60-million last month on the European continent and through London.

This helped keep the price of gold down at a time international demand had started to rise, according to London bullion merchants.

Moscow may have reason to sell more gold this year than last (1959 sales: $256-million), observers say. For one thing, Russia's trade with Britain this year is pretty much in balance, in contrast to last year's favorable balance. If this continues, it's possible the Russians will increase gold sales to strengthen the sterling balances with which they cover sterling deficits with third countries.

Bullion merchants note, incidentally, that the Soviets may be changing their pattern of gold sales. Usually the Russians have sold primarily in autumn and early winter. Last year, Soviet sales ran all the way through early spring, then didn't resume until last month.

MORE NEWS ABOUT BUSINESS ABROAD ON:

• P. 143—U. S. companies are hanging on in Cuba, despite Premier Fidel Castro's drive for total state control of the economy.

• • •

Trade Booming With West Germany, With Balance More in Favor of U.S.

U.S. trade with West Germany, after winding up last year with a "steel strike" distortion, is back to its normal pattern, with first-quarter results showing the U.S. substantially ahead.

Trade is booming for both sides. While U.S. exports are up nearly 50% from the corresponding period last year, West German exports have risen 34%.

With U.S. sales to West Germany hitting $324-million in the first three months, the gap shows the West Germans $86-million behind. For the whole of 1959, the U.S. had a surplus of only $30-million; that was about 8% of the 1958 surplus.

• • •

Plan to Ease Export Credit Risks Gets Under Way With 80 Banks Lined Up

The U.S. government's program to guarantee lenders against political risks in short-term financing for exports started this week with 80 banks authorized to extend the guarantee.

The program is part of Washington's campaign to boost exports and reduce some of the deficit in the U.S. balance of payments. Altogether, the Export-Import Bank invited 125 banks to act as its agents in making guarantees.

A bipartisan move is under way in Congress to provide short-term export credit guarantees against commercial risks as well (BW–May14'60,p36).

• • •

Business Abroad Briefs

Renault of France is negotiating with Hino of Japan an agreement to produce jointly in Japan a small car similar to the Renault Dauphine. Hino already assembles Renault cars.

Russia's airline Aeroflot has opened its first booking office in the Middle East at Cairo. Aeroflot has had a weekly service to Cairo since December, 1958.

General Foods plans to expand its modest production and storage facilities in West Germany due to an increase in demand for powdered coffee. The company's subsidiary may also introduce some new products.

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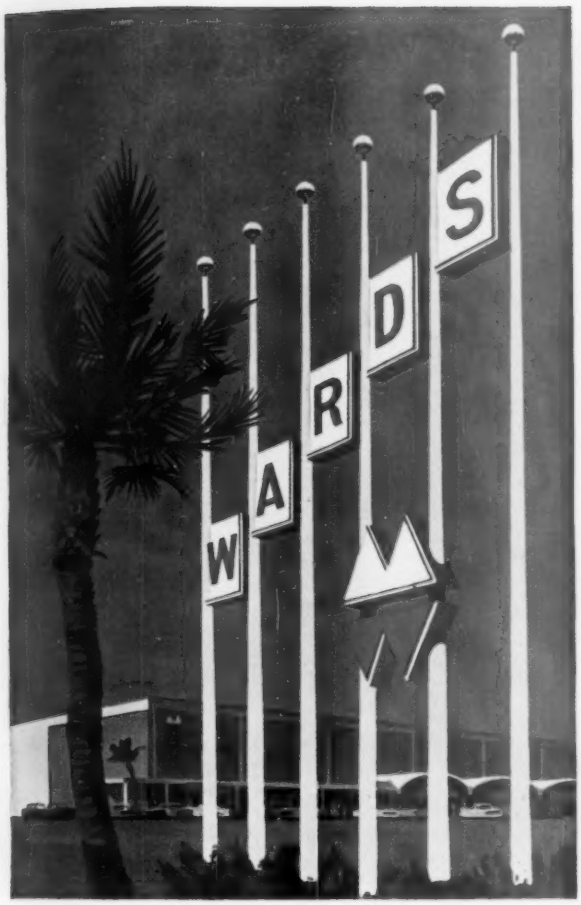

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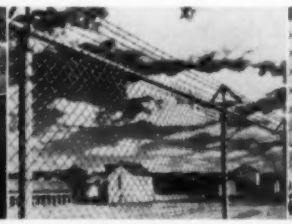

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American Steel & Wire
Division of
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BUSINESS ABROAD

U.S. Companies Hang On in Cuba

Castro is moving toward total state control, with U. S. businessmen caught in an ever-tightening vise.

In New York this week, a businessman with interests in Cuba leaned across his desk to conclude a conversation with this remark: "We don't want to be out of Cuba. We don't want to be thrown out. We don't intend to leave voluntarily. We plan to stay and we're conducting our business so that we can stay."

This executive is more outspoken than many Americans with investments and operations in Cuba, but his words reflect the attitude of many like him. They are caught in an ever-tightening vise as Premier Fidel Castro's revolutionary government moves toward total state control of business and industry, almost without regard for the economic consequences.

A major portion of the $1-billion in U.S. investments in Cuba already has come under some form of government control. The remainder is being squeezed more and more.

• **Sitting It Out**—Despite this, most are determined to hang on as best they can—they have too much invested to call it quits without a struggle.

Some U.S. properties have been expropriated, with promises that former owners will be paid in 20-year bonds bearing 4½% interest. But most of the U.S. interests have been "intervened"—a Cuban revolutionary term meaning to take over management of a business while leaving legal title with the owner. An "interventor" moves into the operation much as a new general manager would. Theoretically, this is a temporary measure intended to orient a business toward the goals of the revolution and control of the business is eventually supposed to revert to the owner.

This gives U.S. businessmen a slim hope that the present government will change its tune enough to permit them to find a way to live with the revolutionary government's economic policies.

• **Another Regime**—Others are waiting for something else. They think Castro will eventually fall and a regime more sympathetic to foreign businessmen will come to power.

The latter possibility is the one thought most likely by many businessmen and Washington officials. They say that the Castro government has been living off the accumulated fat of a rich country, that the accumulated wealth has been used up, and that the Cuban economy is heading into a period of real difficulty.

With the economic downturn, they point out, will come economic collapse or counter-revolution, either of which will dispose of the Castro government. Few venture to say when this will happen, but this thinking leads to a business policy of hanging on until it does, and a U.S. government policy of standing quietly by while Castro takes enough rope to hang himself.

I. Consuming Inflation

More than any other single factor, this view of the Cuban economy rests on the assumption that a consuming inflation has begun, fed by Castro's economic policies, and that it cannot be reversed.

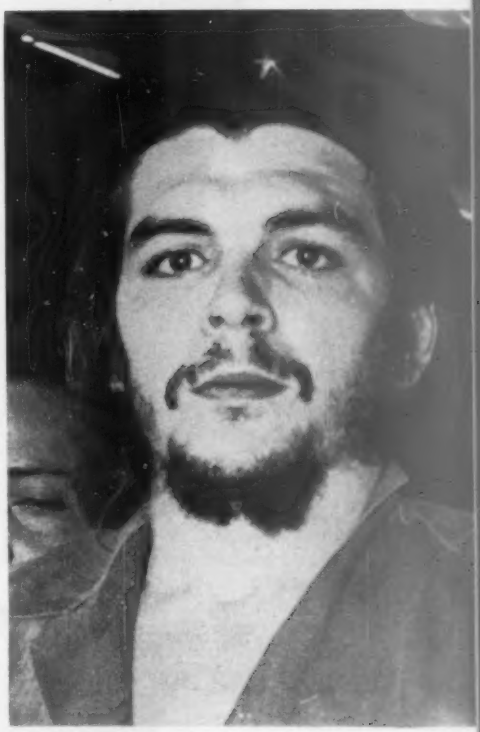
The sugar crop, now being harvested, was good, exceeding last year's $500-million earnings by $75-million. But the money is almost all collected now and it has refurbished the depleted foreign exchange reserves to a total of only $140-million. Cuba currently owes close to $180-billion to foreigners, $135-million of which is due in dollar remittances to U.S. companies.

National Bank Pres. Ernesto "Che" Guevara (picture) started to ease up on these remittances a couple of months ago but has since clamped down again. Imports from the U.S., which averaged about $50-million a month in 1958, have dropped to $23-million a month. And few U.S. exporters are getting paid for even this small amount.

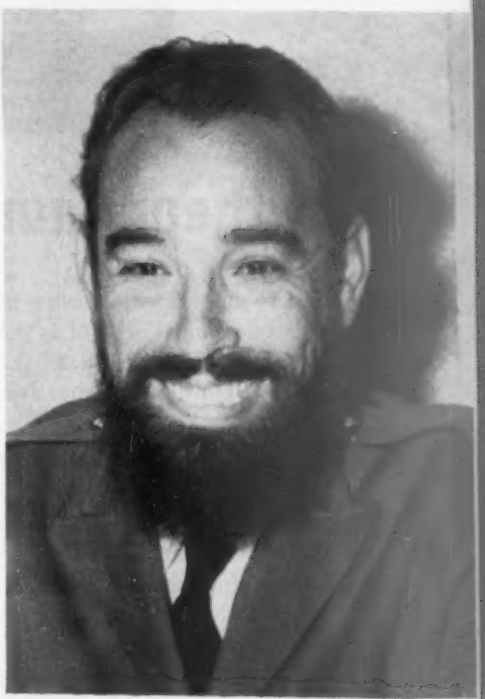
Inventories, which carried Cuba through the last 18 months, are nearly exhausted. Shortages of consumer goods are showing up and industrial equipment and replacement parts are in even shorter supply.

• **Prices Soar**—Against this, the supply of money in circulation is up 23% over a year ago. Castro has raised wages, is spending more than $300-million a year on public works, and has begun to print money without reserves to back it—something the regime promised it would not do. Despite price ceilings, prices are shooting up and black market activities are spreading.

Economists point out that some countries can stand some inflation because they have the productive capacity to take up part of the slack. Cuba does not. Castro has killed off the flow of foreign investment and does not



BANKER Ernesto Guevara is clamping down on Cuban payments to U. S. exporters.



INRA'S Maj. Antonio Nunez Jimenez is "intervening" more and more U. S. holdings.

NEW REVOLUTION IN DISTRIBUTION

Raytheon launches new Unimarket concept

RESULT—branch warehousing in Chicago, Atlanta, Los Angeles and Portland is being eliminated, inventories reduced over $2,000,000. The same standard of customer service has been maintained and often improved upon.

It began when Raytheon Distributor Products Division recognized that with the coming of American Airlines JETfreight, the whole U.S. market had become just 5½ hours wide and 2½ hours deep.

Assisted by American Airlines Distribution Consultant Service, Raytheon completely re-evaluated its distribution. It was proved conclusively that the additional cost of air shipment would be more than offset by the resulting savings. Elimination of warehouses and inventory. Reduced back order costs. Reduced inventory investments.

Implementing its Unimarket program with electronic data processing equipment and automatic inventory controls, Raytheon's Distributor Products Division, in conjunction with American Airlines JETfreight, has *reduced order-to-delivery time as much as 13 days.*

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Much of this does not affect the Cuban peasant, who is used to subsisting on little. But the laboring and middle classes, even those economically better off now than they were before Castro, are finding their newly won standard of living harder to maintain with inflated pesos, and resentments are building.

II. The Toll So Far

It's in this economic situation that U.S. companies are hanging on, some by their fingernails. About 40% of the $1-billion U.S. investment in Cuba is tied up in three big companies, all in a precarious position.

Compania Cubana de Electricidad, a $250-million subsidiary of American & Foreign Power Co., is under tight government control following two rate cuts.

Cuban Telephone Co., $125-million subsidiary of International Telephone & Telegraph Corp., has been virtually confiscated and all U.S. personnel have left Cuba.

Moa Bay Mining Co., with an uncompleted $75-million to $100-million investment in nickel mining and processing facilities, is closed down (BW—Mar.12'60,p29). A subsidiary of Freeport Sulphur Co., it is negotiating its status with the Cuban government.

A few smaller enterprises also have been intervened. Otis Elevator Co. and Abbott Laboratories were both intervened by the Labor Ministry to prevent the owners from closing down due to material shortages and labor troubles.

• **Casualties**—In non-sugar lands, the National Agrarian Reform Institute (INRA), headed by Maj. Antonio Nunez Jimenez (picture, page 143), has intervened Lykes Bros., Inc., 15,000 acres of cattle land worth $400,000, King Ranch's 36,000 acres valued at $4-million, Jack Eberhardt's 20,000 acres worth $2-million, and Cuban Land Leaf Tobacco Co.'s 2,800 acres valued at $3-million. INRA also purchased a henequen plantation from International Harvester Co. for $3-million.

The outlook for sugar lands is even worse. Havana observers say all U.S. holdings, estimated to be worth $200-million to $300-million, will be gobbled up in the shortest possible time, now that the harvest is over. Several properties have already been expropriated. United Fruit Co. has had 273,000 acres of sugar and cattle grazing land taken and is now protesting through court action. INRA offered to pay $6.1-million for land the company says is worth $56.6-million.

Other U.S. companies are operating —but under threat of intervention and

U.S. Ambassador Philip Bonsal keeps his ear to the ground at his post in Havana.

pressures applied through exchange controls and labor demands. Cuba owed three oil companies—Standard Oil of N. J., Shell, and Texaco—$50-million in foreign exchange at the end of 1959, with $2-million a month added since. Owens-Illinois Glass Co.'s glass factory enjoys excellent sales but is confronted with constant labor agitation from the government-controlled union and demands for a 30% increase in wages.

Some executives in Cuba are getting philosophical about the whole thing. Says one, "I've heard so much about threats of intervention that now I don't pay attention to them." But he admits privately that intervention appears inevitable. What may hold it off is the lack of technical personnel capable of running the business or plant. The Cubans are looking for such people in other Latin American countries.

III. Weather Vanes

Two industries in Cuba merit special attention as indicators of things to come. One is the oil industry, the other the U.S. government-owned Nicaro nickel processing plant.

The oil industry is caught not only by a foreign exchange squeeze—it cannot get enough dollars to pay for crude imported for its three refineries—but is now being threatened by competition from the Cuban Petroleum Institute, established by the government to refine Russian crude oil and market products through its own outlets.

Following a trade-and-aid agreement signed last February (BW—Feb.20'60, p47), the Soviet Union has sent one shipment of crude and two of refined products to Cuba. The U.S. oil companies fear the Cuban government oil company may cut its prices drastically, or stir up enough labor trouble to squeeze the foreign companies out and set up a Cuban monopoly.

The Cuban Petroleum Institute operates a small, 2,500-bbl.-per-day refinery, which it acquired from the Batista regime. It cannot possibly fill the refined product requirements of the 60,000-b/d market. Its sugar-for-oil barter arrangement with Russia gives it access to plenty of crude—and it can get it without using up much dollar exchange.

• **Poser**—This week, the Cuban government notified the three foreign oil companies that they will be required to refine some of the Russian crude. (Jersey Standard's capacity is 36,000 bbl. per day, Shell has 28,000 bbl. and Texaco's is 24,000 bbl.) At midweek, one company said it didn't know what it will do, that the subject is "under discussion." There are some technical problems in handling the Russian oil but they're not insurmountable. Much depends on what Washington has to say about it.

The Cuban government further tightened the screws by declaring null and void the exclusive marketing agreements each company had with its distributors. From now on, these 2,500 distributors will be permitted to buy products from any source—which means taking all the government oil company tells them to.

• **Nickel Impasse**—The other indicator, Nicaro, is even more directly a concern of the U.S. government. Last December, Castro officially exempted Nicaro from paying the new 25% export tax for three months. The grace period ran out in March but the General Services Administration, which runs Nicaro, didn't plan a shipment until late April. The ship that went for the haul left with an empty hold because the Cuban government refused to clear it without payment of the tax. The U.S. government maintains that a pre-Castro government-to-government agreement exempts the facility from the new tax, and refuses to pay.

At this point, it looks as though both sides will stand firm. Nicaro may be forced to close down, or cut production to a minimum and let the nickel and cobalt pile up. This will increase Cuban unemployment and deprive the government of badly needed foreign exchange. It will have little immediate effect on the world nickel market, which is generously supplied at the moment.

IV. Four-Way Opposition

U.S. observers in both Cuba and Washington are looking for the toppling of the Castro regime as the solution to their problems. Washington estimates that Castro's popular support has dropped from 90% of the popula-

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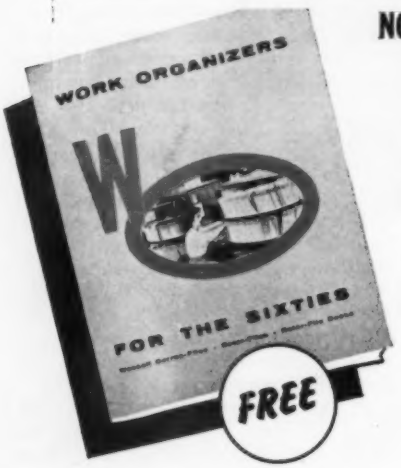

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—National Machine Accountants Association, January 1960

"In manufacturing industries, the rate of growth of non-production workers since 1947 has been about 15 times that of production workers."

—Office Equipment Manufacturers Institute, September 1959

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tion to around 50%. He still has the backing from most of the peasants and laboring people.

There's noticeable opposition to the regime coming from the middle-class businessmen, some intellectuals, and the Roman Catholic Church. The Cuban business community is becoming disenchanted as the government takes over more private enterprises. Intellectuals are divided between a hatred of the corruption and terrorism of the previous regime and a growing distrust of the quixotic and contradictory statements and actions of Castro and his followers. The Catholic opposition centers on the atheism of Communism, described in a pastoral letter this week as "the enemy within our gates."

A fourth group, the Movemiento para la Recuperacion de la Revolucion (MRR), includes some leaders of Castro's 26th of July movement who have lost faith in Castro, largely over the Communist issue. Hubert Matos, a former major in Castro's forces, is believed to be the leadership choice of this group, should it overthrow Castro. MRR has organization and popular appeal, but lacks money. It is probably the group the Catholic bishops will back when they break with Castro officially.

• **Red Ties**—The Castro regime's ties to Communism may be a powerful influence in its ouster. Internally, it is making the government more and more suspect. Externally, it is isolating Cuba. Castro has all but broken off relations with the U.S., although Ambassador Philip Bonsal remains in Havana. Relations with Latin American nations are not good. This week, Cuban Pres. Dorticos took off on a four-nation tour to try to generate some sympathy for the Castro revolution.

Cuba seems headed for even closer ties with the Soviet bloc. This month, it established diplomatic relations with Russia (BW—May14'60,p138), and is expected to set up the same relations with Red China and East Germany shortly. This week, a seven-man trade mission headed by INRA chief Antonio Nunez Jimenez, left for talks in Poland, Czechoslovakia, East Germany, and the Soviet Union.

• **On a Limb**—In the opinion of some Washington officials, however, Cuba is not likely to get nearly so much economic help as it expects or needs from the Soviets. The sugar deal hasn't produced much for Cuba in the way of industrial equipment, and talk with East European satellites has been only that.

This leaves Castro and his regime in a pretty shaky position economically. And with the economic promises he has made, he needs outside help to fulfill them. Right now, it's hard to say where it will be coming from. END

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disperse moisture which can collect on exterior surfaces and prevent lamps from starting.

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High Court to Review Judge's Decision On du Pont's General Motors Stock

The antitrust battle that began in 1949 between the Justice Dept. and E. I. du Pont de Nemours & Co. once again shifted to the Supreme Court.

The court this week agreed to review Federal District Judge Walter LaBuy's decision that du Pont can keep its 63-million shares of General Motors stock so long as it doesn't exercise the voting rights. **The government argues that only a combination of divestment and distribution of the GM stock to individual stockholders will satisfy the Supreme Court's 1957 ruling that the du Pont stockholdings in GM violate the Clayton Act.**

The Supreme Court in 1957 directed Judge LaBuy to consider what relief should be awarded in the case, after it had reversed his original ruling that there was no antitrust violation involved in the du Pont-GM relationship. Judge LaBuy, after considering the government's proposals for divestment, ruled last October that divestment would be "unnecessarily harsh and punitive."

The Supreme Court also acted in several other cases:

• **The court added another challenge to state law banning Sunday retail sales to the list of similar cases to be argued and decided next term.** The latest case involves a group of Philadelphia retailers who argue that their religious beliefs prevent them from operating on Friday evenings and Saturdays and that Pennsylvania is discriminating against them by forbidding them to operate on Sundays.

• **The court will hear a challenge to Connecticut laws that make it a criminal offense to use or prescribe contraceptive devices.** The case is being pressed by a Connecticut physician and two of his patients.

• **The court also will hear the arguments of several small companies that unsuccessfully sought to appear in court to urge changes in proposed modifications being made in a previous consent decree** between the Justice Dept. and the American Society of Composers, Authors, & Publishers. Several small company members of ASCAP claim they had a right to participate separately in the proceedings, since they would be bound by the terms negotiated by ASCAP. The case could have an important effect on the modification or negotiation of consent decrees in antitrust cases.

• • •

House Unit Trims President's Request For Funds for Public Works Program

The House Appropriations Committee has pared $159.2-million from the President's request for funds for federal public works in fiscal 1961. It trimmed the public works appropriation bill to $3.8-billion, which is $31.9-million lower than the present public works budget.

The bill was sent immediately to the floor of the House for endorsement. **The committee's version deletes four new construction starts proposed by the White House, but adds one of its own.**

The Army Corps of Engineers budget was cut by $45.5-million to $891-million, and the Corps' construction funds were trimmed $48-million to $662.6-million. The Bureau of Reclamation's budget was slashed $23.9-million to $277-million, and its construction funds were cut $7.5-million to $166.4-million. The Atomic Energy Commission's budget was cut by $89-million to $2.58-billion.

MORE NEWS ABOUT GOVERNMENT ON:

• P. 153—Defense Dept. is revising military air transport policy, but MATS is under fire from commercial airlines.

• • •

Gas Company Attorney Comes Out Second Best in Tilt With House Group

Attorney Thomas G. Corcoran worked hard last week explaining to the House Legislative Oversight Subcommittee why he was justified in having off-the-record meetings with three Federal Power Commissioners. After two days as a witness, he had committee members saying that if his talks with the commissioners weren't illegal they should be.

Congress, the courts, and the Administration have failed to tell the commission how to regulate the natural gas industry, said Corcoran, and **the result has been to slow down the regulatory process to the point where companies have to "nag" the commissioners privately to get anything decided.**

As general counsel to Midwestern Gas Transmission Corp., Corcoran talked individually with FPC Chmn. Jerome Kuykendall and Commissioners Arthur Kline and William R. Connole last October while they were deciding the company's bid to import Canadian gas.

Corcoran said these talks were within the limits of the law and chided Congress for failing to enact an explicit standard of conduct for regulatory agencies.

Rep. John B. Bennett (R-Mich.) characterized Corcoran's testimony as "an amazing litany of contradictions, double-talk, inconsistencies, and evasions."

Chmn. Oren Harris (D-Ark.) concluded: "These were improper approaches to these commissioners to the disadvantage of other people . . . and if the law permits it, it's our duty to do something about it."

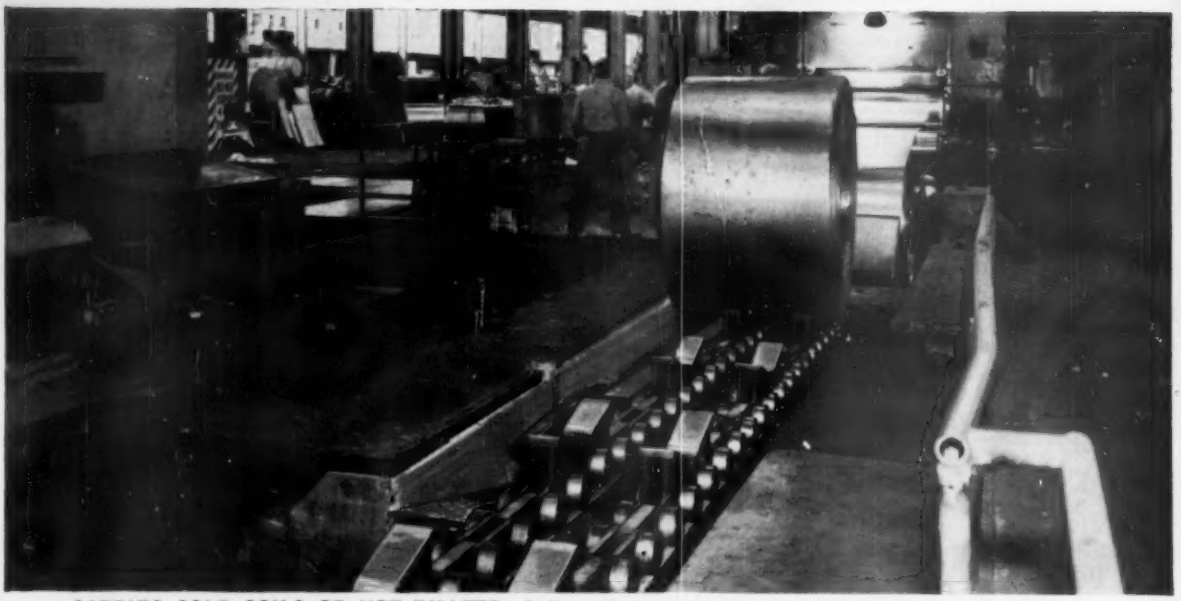
• • •

Oil Import Curbs Win Court Test

The government program limiting oil imports withstood the first round of a new legal test this week when a federal district judge threw out a suit by Gulf Oil Corp. Gulf had sought to change the government's method of allocating residual fuel import quotas. The company is expected to appeal its case.

In another oil action, the Interior Dept. has decided to drop plans to deduct exempted Canadian imports of crude oil from a company's total allocation of crude.

What's NEW in Mechanization



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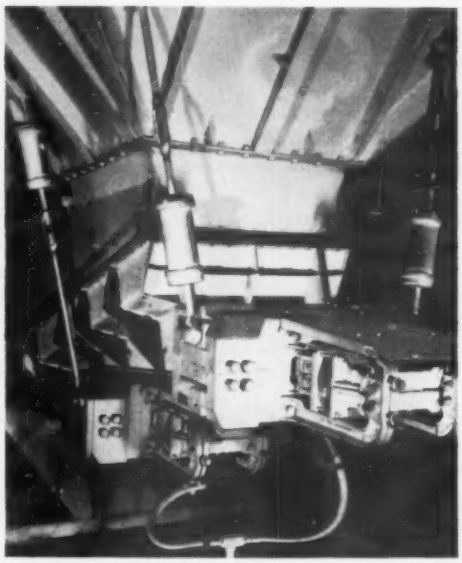

DOLES OUT COAL—This Jeffrey vibrating feeder, in the fuel handling system of a power plant, not only feeds the coal but doles it out at preset rates. Thus material flow is automatically controlled to minimize costs.

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PEACETIME utilization of Military Air Transport Service capacity puts military in competition with commercial lines.

WAR MANEUVERS show up shortages of airlift for combat troops, push Army still farther into the airline business.

MATS' Wings Still Unclipped

Back in July, 1958, Pres. Eisenhower ordered the Defense Dept. to take a long hard look at the military air transport program—for years the focus of a bitter, emotion-charged political dispute—and to come up with plans for cooling off the controversy.

At issue then, as they still are today, were two main points:

First, the Military Air Transport Service's peacetime operation of an airline in competition with commercial carriers.

MATS' fleet of close to 1,000 planes is the biggest in the world. As its name implies, MATS is charged with furnishing the military with air transport services. This includes types of operation peculiar to the military—hauling outsize or dangerous cargo; flying into remote regions like the Arctic or Antarctic; running weather, air rescue, and medical evacuation programs.

It also includes the regular hauling of passengers and freight over fixed routes. This is where the commercial airlines start howling in protest.

According to the Air Transport Assn., which has long fought to get MATS out of the airline business, MATS carries about 25% of the passenger and 62% of the freight traffic that is flown over the Atlantic, along with handling approximately 10% of all the free world's international passenger traffic and 56% of its global freight traffic.

Second, the Army's lament over shortages of airlift for ground combat forces.

Many U.S. military strategists believe that general nuclear war is unlikely ever to be fought because of the consequences of mutual suicide for the participants. They are convinced that the threat of local limited wars—"brushfires"—is a much more serious one.

To fight such wars and to keep the conflict limited, these strategists place a very high priority on transport planes to speed powerful mobile forces to the hot spots.

As these defense experts see it, inadequate airlift is more critical to U.S. defense than the much-talked-about missile gap.

• **Intertwined**—The two issues of military competition with the airlines and inadequate combat airlift are intertwined. The critics charge that MATS' preoccupation with routine airline operations hurts the combat airlift mission. They claim, too, that by cutting commercial airlines out of most routine military business, the Pentagon denies private carriers an incentive to modernize fleets and thus build up reserve airlift capacity that could be mobilized in wartime.

• **New Policy**—Next week, on the heels of a broad-gauged Pentagon study of the problem, a set of recommendations by a citizens committee of experts, a profusion of Congressional inquiries, considerable lobbying by both the airlines and MATS, and adroit political jockeying by Congressional proponents of both sides, it is expected that the Defense Dept. will approve some reshuffling in military air transport policy.

MATS will get at least $150-million to buy latest model turbine-powered transport planes. Modified versions of aircraft already in production will be bought for "interim" modernization of MATS' obsolescent fleet, with deliveries during 1962 and 1963. These will be Lockheed's C-130E turboprop and probably Boeing's C-135 (a cargo version of the KC-135 jet tanker). For longer-term modernization, the Air Force will award a contract late this summer for design of a vastly improved "workhorse" cargo plane that could be built in four years.

MATS will make slight revisions in its policy of chartering planes from the commercial airlines. Contracts will now be placed for longer periods and will be awarded by negotiation rather than by open advertised bidding. MATS will continue to pay less than the rates approved by the Civil Aeronautics Board. Preference on contracts will be given

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carriers with types of aircraft MATS would want to call up for wartime service.

I. Airline Reaction

The airline industry's reaction to the policy shifts was immediate and harshly critical. Said an airline vice-president in Washington: "We're getting washed down the drain."

The Pentagon's revised military air transport policy represents few important changes and steers far away from what the airlines have proposed. Fundamentally, the industry has pushed for a sharp reduction in MATS' so-called aircraft utilization rate as a means of getting the military out of the airline business.

This is the average daily flight time scheduled for MATS aircraft in peacetime. The rate runs five hours a day. The Air Force's policy is to use this flight time productively, as officers term it, rather than fly transport planes empty or with dummy cargoes. In the course of its normal operations, the military needs lots of airlift to ferry passengers and freight around the world. Therefore the result is this: MATS pilots and other personnel are able to perform their readiness training and provide the required airlift services at the same time.

The airlines scoff at the Air Force's reasoning and get impressive support from such experts as Elwood R. Quesada—administrator of the Federal Aviation Agency and a former Air Force general—who claims that a 1½-hour daily aircraft utilization rate for MATS would be adequate.

• **Only Crumbs**—Obviously, such a reduction in MATS operations would generate a big chunk of new military business for the airlines. As it is, Congress has directed MATS to set aside fixed amounts of traffic for private lines. The budget earmarks $80-million for MATS to buy this service.

In fiscal 1961, MATS plans to contract out 55% of its passenger and 10% of freight traffic. This is out of a total annual volume of military air transport traffic of 4.1-billion passenger-miles and 715.9-million ton-miles of freight.

The airlines look upon the MATS' setasides as crumbs. The Air Transport Assn. estimates that the civilian carriers could handle about 80% of MATS' traffic. MATS' remaining operations are "hard-core" military flights—shipments of outsize cargoes of missiles, ammunition, and such, and flights to destinations off the beaten airline track—which the commercial airlines concede should stay in military air transport hands.

• **Special Rates**—The airlines have also insisted that MATS buy air transport service at CAB-approved rates. MATS' policy of open bidding, say the airlines, has resulted in cutthroat prices that have discouraged the carriers from ordering modern aircraft for the military market.

MATS' response: We have kept defense costs down through bidding, have paid one-third of what we would have had to pay under common commercial rates for transport service.

The industry is also unhappy over MATS' intent to buy commercial-type jets under the interim modernization program. Says an airline executive, "With these new planes, MATS will be off and running with an even bigger airline."

II. Chicken and Egg

In recent months, the airline industry had been expecting a reorientation of MATS' policy more favorable to their demands.

Last February, the Defense Dept. published a report, "The Role of MATS in Peace and War." It contained "Presidentially approved courses of action" to trim the service's volume of regularly scheduled, fixed route operations.

The report was generally interpreted as the long-awaited move to get MATS out of the airline business. Sen. A. S. (Mike) Monroney (D-Okla.), chairman of the Senate aviation subcommittee, and a supporter of the airlines' fight against MATS, hailed the action as a tremendous step forward.

Then the Air Force set up a seven-man citizens committee, headed by Gordon W. Reed, board chairman of Texas Gulf Producing Co., to advise how to carry out the new program. The Reed committee recommended that MATS pay the private carriers regular commercial rates.

Now, says Tom Taylor, vice-president of Trans World Airlines, "it seems as if the Air Force is being allowed to ignore the recommendations to get MATS out of the airline business."

Pentagon officials reply that a closer reading of all the recommendations will show that any phase-out of MATS from airline-type operations is contingent on this: that the civil airlines first build up their capacity to handle wartime air transport tasks, thus reduce the need for the military air transport to keep up its high peacetime aircraft utilization rate.

The airlines contend that if they had assurances of a solid military peacetime market paying fair prices for carrier service, they would buy new planes. It all boils down to the age-old refrain of which comes first.

In all the fussing over military competition with the civil airlines, the House Armed Services Committee has thrown its considerable influence behind MATS on the grounds that MATS should not be kept in a deepfreeze during peacetime.

III. Where We Stand on Airlift

In evaluating the adequacy of U.S. airlift forces, you get caught in a tangle of competing requirements, fuzzy planning, and conflicting assumptions.

MATS, which is responsible for "strategic" transoceanic lift—as distinguished from "tactical" airlift—has 483 four-engine passenger and cargo aircraft assigned to the mission. The only modern plane is the Douglas C-133 Cargomaster turboprop, which carries at least 50,000 lb. 3,500 miles nonstop, cruising at close to 300 mph. The C-133 is used for outsized military freight such as ICBMs and IRBMs. MATS has 31 C-133s operating and 19 more on order.

The remainder of MATS' four-engine fleet consists of seven-to-10-year-old prop-driven aircraft—the Douglas C-113 (a military cargo version of the DC-6A), Lockheed's C-121 (military counterpart of the Superconstellation), and the Douglas C-124 Globemaster.

Backing up MATS is the Civil Reserve Air Fleet. This is made up of 20 private lines that have agreed to fly a total of 232 planes for the military in case of war. Half of these are passenger types (52 jets), half cargo aircraft. But the cargo planes are in bad shape.

The Tactical Air Command runs the hard-slamming tactical lift mission within overseas areas. This is provided by specially designed aircraft that can drop paratroops and combat gear or make assault landings on a battlefield.

TAC has two wings deployed in Europe, one wing in the Far East, and two based in the continental U.S. Each unit has 48 aircraft. About half TAC's planes are Lockheed C-130A or B turboprop models, the remainder obsolescent Fairchild C-123s.

The Marine Corps has its own force of assault transport planes—about 60 obsolete Douglas C-54 and Fairchild C-119 aircraft.

• **Argument**—The Joint Chiefs of Staff have officially determined that U.S. airlift capabilities are adequate for both general and limited war.

Gen. L. L. Lemnitzer, Army Chief-of-Staff and a JCS member, violently disagrees. JCS's limited-war determinations does not take into account the possibility of two or more brushfire conflicts occurring simultaneously in different parts of the world.

• **Army's Goal**—This is what the Army wants: enough strategic airlift to fly at least two reinforced battle groups (about 2,000 men each) and equipment anywhere within hours, a full division (about 12,000 men) within days, two divisions within two to four weeks.

How much airlift could the Army

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depend on if war began tomorrow? The grim answer is that it doesn't know.

Much to the Army's dismay, JCS war plans do not use specific numbers of long-range transport aircraft for Army airlift. Indeed, almost three-fourths of the lift capacity is virtually reserved for competing requirements—overseas deployment of SAC and TAC.

The Army would have to depend on effective mobilization of the Civil Reserve Air Fleet. But Lemnitzer and other military leaders doubt whether the airline planes could be mobilized fast enough to do much good.

Even under the best of conditions this is the best Air Force planners say they can do for the Army in a hypothetical situation:

Fly one battle group from Ft. Campbell, Ky., to the Middle East in 2½ days. This would require 70 planes on single sorties, with refueling stops in the Azores, Morocco, and Libya.

Fly one division over the same route in about 12½ days, using 500 planes flying 700 sorties.

IV. Big Slam

The gaps in U.S. airlift capabilities were shown up dramatically during the two-week "Exercise Big Slam" conducted in Puerto Rico last March. This was the largest airborne military operation ever conducted in peacetime.

MATS used 447 planes, flew 1,263 sorties, was in the air 50,496 hours. Over 21,000 troops and 11,000 tons of cargo were moved to Puerto Rico from bases in the continental U.S. At the peak, 92 planes were airborne in a continuous stream between Florida's east coast and Puerto Rico.

On the surface, the results were impressive. But the test was not too realistic. A minimum of cargo was moved, prepared bases were available, no island refueling was required because of the relatively short distances involved, five months of advanced planning went into the exercise. In short, Big Slam did not mirror wartime conditions.

• **The Lesson**—In the eyes of both the Air Force and Army, however, Big Slam pointed up a critical need to beef up MATS with modern transports. Several dozen more jet planes would have slashed the time required to move the troops and cargo. And the lengthy flight in obsolescent, non-pressurized aircraft had many of the troops panting on landing, in no condition to fight on a tropical battlefield.

Gen. Bruce C. Clarke, chief of the Continental Army Command, sums up Big Slam this way: "[It showed] that limitations of the majority of present MATS aircraft seriously limit the sizes of forces we can deploy to distant overseas destinations in an acceptable period of time." **END**

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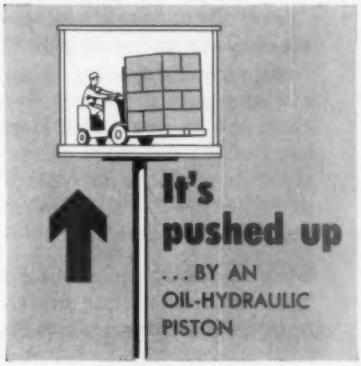

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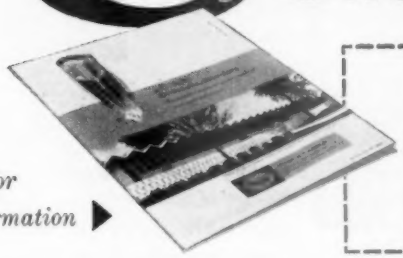

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

MAY 28, 1960

As the Western leaders extricated themselves from the rubble of the toppled summit this week, they began looking to East Asia for more trouble (page 26).

Besides its potential problems with Communist China, the U.S. is having difficulties in Japan, a major ally. Prime Minister Nobusuke Kishi last week rammed through the lower house of the Diet the ratification of the U.S.-Japanese Mutual Security Treaty. The Socialist opposition rioted in protest, demanded that Pres. Eisenhower call off his upcoming visit and that pro-U.S. Prime Minister Kishi resign.

This week, Socialist leaders, bypassing the Kishi government, called on the U.S. ambassador to demand that Eisenhower postpone his visit, scheduled to begin June 19. They predicted that his trip would set off "widespread disorder and agitation." The U.S. ambassador, Douglas MacArthur II, sharply rejected the proposal and noted that the Socialists had the influence to prevent such disorders.

At midweek, White House spokesmen said that Eisenhower would go, although there were hints that the schedule might be altered. Washington observers reasoned that he would make the trip, despite possible unfriendly demonstrations, to reaffirm the importance of the U.S.-Japanese alliance.

In Japan, the Socialists are boycotting the Diet and several thousand youths, at midweek, demonstrated in front of Kishi's home. **The most likely settlement of the political chaos is replacement of Kishi by another conservative.** Leading candidates are Hayato Ikeda or Ichiro Kono, neither of whom has basic policy differences with Kishi.

—•—

Gen. de Gaulle has emerged from the summit with new strength.

Despite the fact that he was following his own interests, **de Gaulle can point to the fact that he stood loyally behind the Western Alliance** in the face of Russian threats. Furthermore, in his speeches on Berlin before the summit and in his meeting with Khrushchev in March, de Gaulle played a major role in convincing the Soviet Premier that he was barking up the wrong tree with his "detente" policy.

Washington has been heaping praise on the General ever since. Actually, French policy toward Bonn would have been weakened by any summit agreement on Berlin and Germany. And French aloofness from a possible nuclear test ban agreement would have made international life unpleasant for de Gaulle.

Moreover, de Gaulle's military ambition to build an independent nuclear striking force makes more sense in the wake of a summit failure than it would have in a continuing relaxed atmosphere.

In the present international atmosphere, **the General may feel that the time is ripe to push for his old idea of a Big Three "directorship" in NATO,** U.S. help in developing ballistic weapons, or perhaps establishment of an independent Western European nuclear deterrent, dominated—naturally—by the French.

Britain's relations with France and West Germany are somewhat improved since the summit's collapse. De Gaulle's visit to London seems to have had lasting results in putting the French and British on speaking terms. Anglo-German relations are still not good, but they are better. After Paris, all three have drawn closer together—and NATO is stronger, not weaker.

The long diplomatic tug-of-war between the Six and Seven trading groups in Europe is reaching a turning point following adoption by the Six (dominated by France and Germany) of a modified Hallstein plan for accelerating creation of the Common Market.

A climax may be reached next month when the U. S. and Canada meet with all the countries of Europe to discuss trade problems. At this meeting, the British-dominated "Seven" group is expected to make the basic decision whether to continue opposing the acceleration program or to resign themselves to getting the best deals they can from the Six on specific trade problems.

Washington, of course, hopes that the Seven will now drop their opposition to the principle of the Common Market and get down to item-by-item bargaining. It may be that Washington's wishes have received a fillip from the new chill in East-West relations.

—•—

There's trouble ahead for Venezuela's proposal to have oil-producing countries restrict their own production.

True, Saudi Arabia's oil chief, Abdullah Tariki, is for the idea. And, under pressure at home, the Venezuelan government has embarked on a vigorous promotion campaign abroad.

Properly executed, the plan would put a floor under international oil prices. This would protect Venezuela from a possible price war with Middle East crude. And it would give Venezuela maximum revenue from its oil —a non-renewable resource—for investment in industry and agriculture. (Despite near-record production, Venezuela's oil income is declining this year.)

A major problem is getting Middle East producing countries to agree. They all want as much production as they can get; Saudi Arabia's Tariki is considered a dreamer who doesn't necessarily have his own government behind him. With lower costs, the Middle East generally is in a better competitive situation than Venezuela.

Even if agreement were reached on who could produce how much, **it would be difficult for the pact to work without participation of Russia and potential exporters** in North Africa that are coming into their own.

Though a few big oil companies claim to accept international prorationing in theory, they also add this to their objections: Once governments have an assured share of the world oil market, they will be in a better position to expropriate private oil companies. Furthermore, they say, there inevitably would be a temptation on the part of participating governments to set oil prices too high. And this would stimulate competition from other energy sources.

—•—

After two weeks of dawdling with ballot-counting, Panama has a new president-elect, Roberto Chiari. He is the leader of the opposition party and defeated the candidate of the incumbent party, Ricardo Arias. Washington considers Chiari the less moderate of the two when it comes to demanding concessions from the U. S. in the Panama Canal Zone (BW—May14'60,p150).

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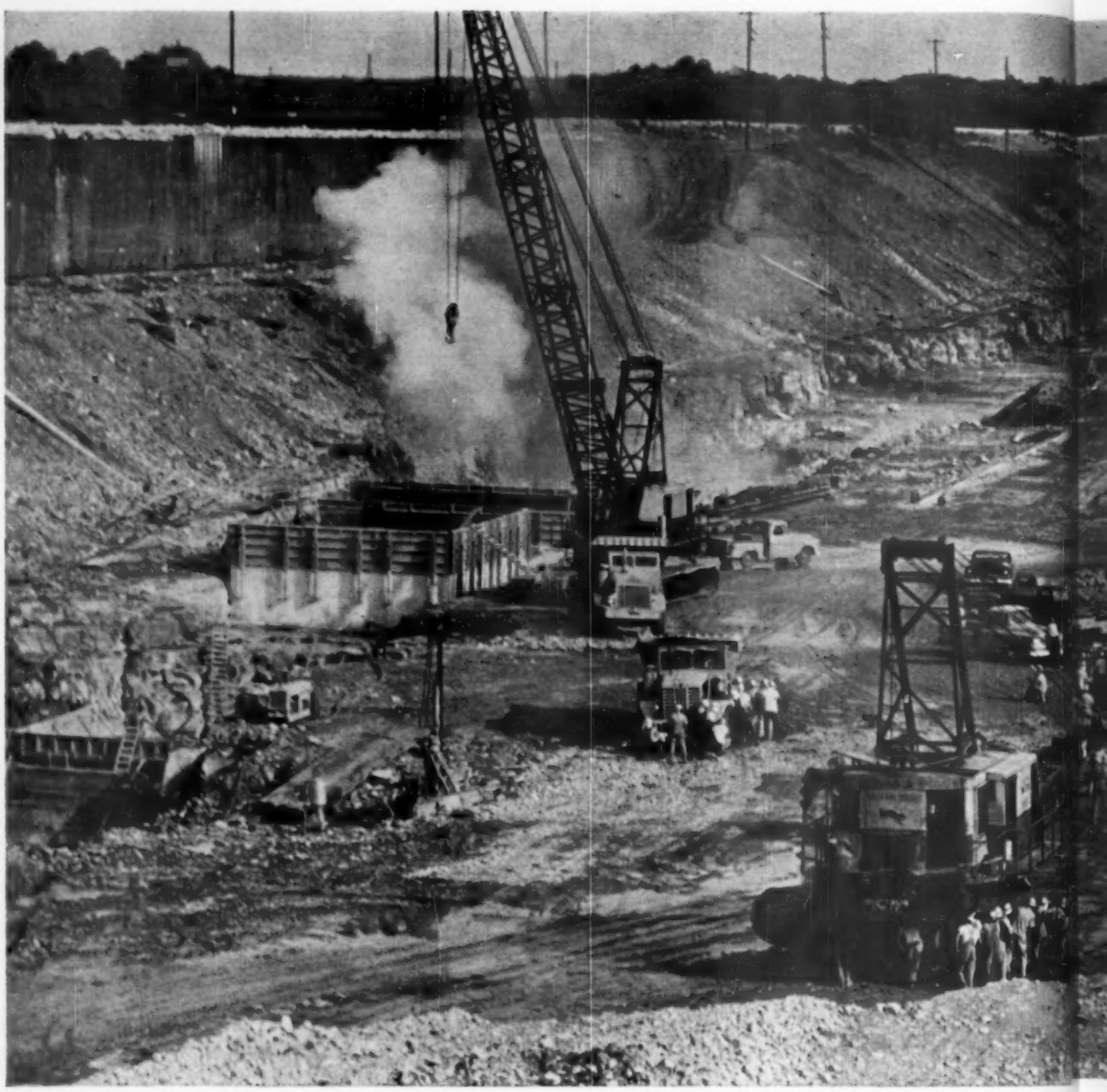

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John O'Hearn (left), Project Manager, Tecon Corporation, Dallas, Texas, with S. P. McCracken, Gulf Sales Engineer. Capable engineering counsel is an essential part of Gulf service to every industry.

◀ Men take cover behind equipment during blasting at Barkley Dam project.

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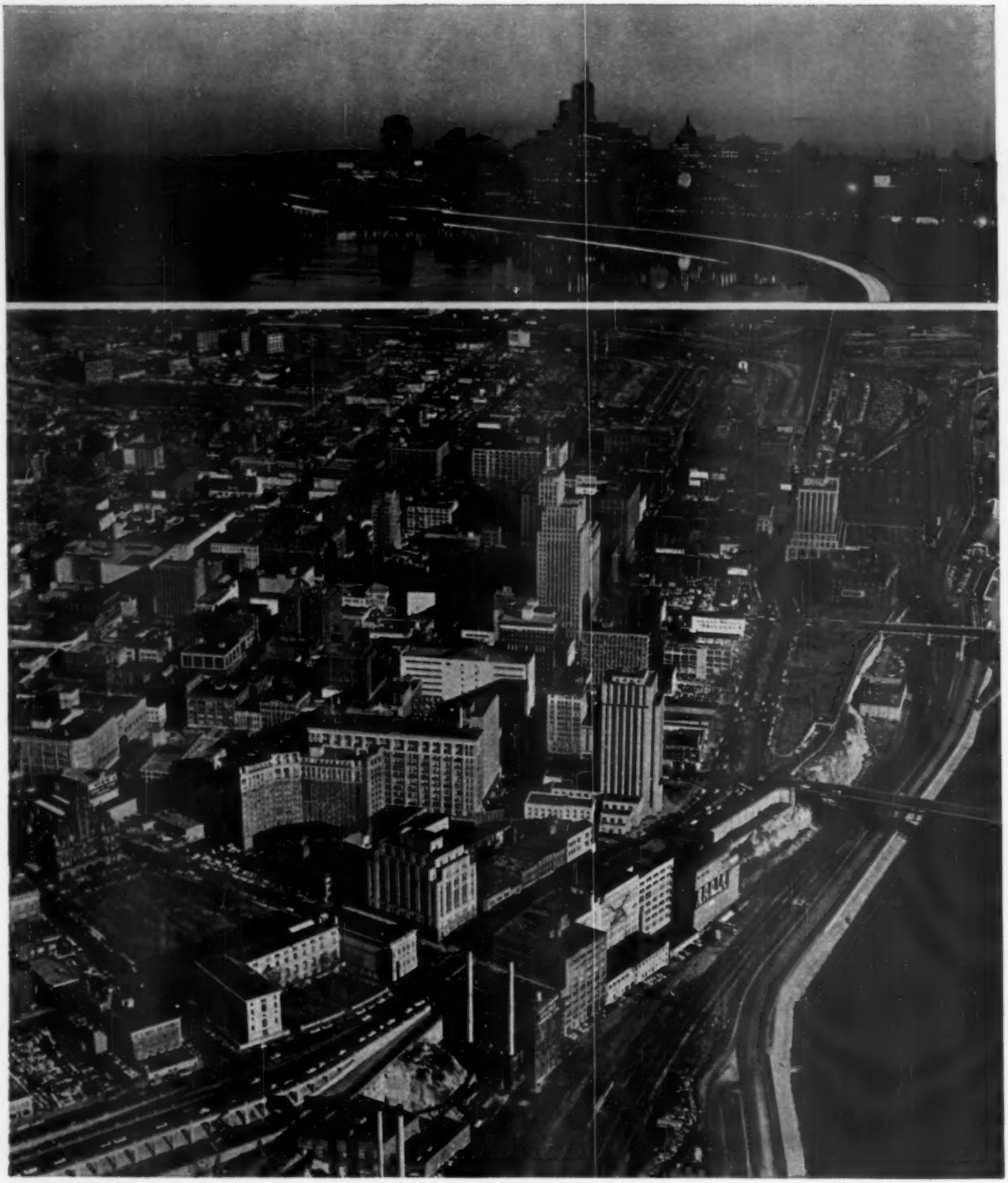

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More Voices Raised At Annual Meetings

"You're just making a nuisance out of yourself," S. S. Neuman, chairman and president of Publicker Industries, Inc., snapped at a stockholder who fired some 70 questions during the distilling company's annual meeting in Philadelphia this spring.

Plenty of other top executives could have said the same thing to hecklers at their own annual meetings this year. For the most part they were too circumspect to do so. Officially, officers of large companies love all stockholders and everything they do. Only unofficially will some admit that the modern annual meeting, with its addresses, movies, slides, tours, exhibits, souvenirs, and lunches—and its time-consuming orations from the floor—is getting to be something of a pain in the neck.

• **New Attitude**—Annual meetings have come a long way since the era when a handful of stockholders crowded into a lawyer's office in Wilmington to hear management vote its proxy statements. In those days, the small stockholder was, at best, ignored.

Now he is wooed. Prodded by the Securities & Exchange Commission, the stock exchanges, organizations claiming to speak for minority shareowners, examples of successful proxy fights, and their own consciences, managements of most large publicly held companies have adopted a new attitude toward minority stockholders. The pitch is, "This is your company. We want you to feel that you are a part of it."

The climax of it all, of course, is the annual meeting. There, in the new view, stockholders meet the people who run the business for them, hear firsthand how the company is doing, and question management about its stewardship. The small stockholders are urged to take part in this process of "corporate democracy."

I. Axes to Grind

Not surprisingly, these invitations are being taken up in ever-increasing numbers. American Telephone & Telegraph Co. had more than 11,000 at its annual meeting this year, and many companies have been pulling over 500.

Along with the serious investors, typical annual meeting crowds include old ladies on a day's outing, self-appointed representatives of minority stockholder rights, and, increasingly, spokesmen for special interest groups. For example, white and Negro representatives of the Congress of Racial Equality last week picketed the meetings of S. H. Kress & Co. and F. W. Woolworth Co. Inside, speakers—not all of them stockholders—urged the companies to serve all comers at lunch counters in the South.

At Crane Co.'s annual meeting last month, union pickets protested personnel cuts and a local union officer made a plea for "a little security for the old-

PERENNIALS at many meetings include Lewis Gilbert (above), a crusader for corporate democracy, and actress Gloria Parker.

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timers who built the company." Other union representatives turned up at Sharon Steel Corp., J. I. Case Co., and General Electric Co. At the GE meeting they criticized stock options, raised the problem of technological unemployment, and distributed pamphlets.

Two stockholders who are suing Columbia Broadcasting System, Inc., argued with executives for a couple of hours and nearly came to blows with the general counsel. Last year, at Radio Corp. of America's meeting, one woman stockholder slapped another in the course of a debate on the merits of RCA's management.

• **Perennial Crusaders**—The "professional" stockholders were out in force this spring to crusade for corporate democracy. Mrs. Wilma Soss, president of the Federation of Women Shareholders, made her usual pitch for women on the board of directors. At the U.S. Steel Corp. meeting, she and two associates spoke for two hours on behalf of an unsuccessful resolution for secret ballots in corporate elections.

Lewis and John Gilbert, New Yorkers who own shares in several hundred companies and circulate their own annual report to a list of 8,500, pressed their drives against staggered directors' terms and for cumulative voting, more frequent board meetings, and limitations on executive compensation. Chmn. Louis Wolfson of Merritt-Chapman & Scott Corp. promised his directors would meet monthly. American Can Co. and American Radiator & Standard Sanitary Corp. dropped the stagger system.

• **Under Fire**—Some of the meetings were love feasts for the management; some, even quite large ones, went off without a single question from the floor. But dozens of managements came under heavy fire.

Stockholders were particularly vociferous about executive pay. A perennial critic of Chrysler Corp. attacked stock options, among other things, in a 10-page speech demanding a change in the "officer or officers responsible for the active direction of the operations."

Compensation was a favorite target in companies where earnings were off. One stockholder complained, "Everything goes up except dividends and the price of our shares."

Payola was a topic at broadcasting company meetings. Mrs. Soss showed up at CBS' session with a mop and pail to "clean up TV." TV sponsors were criticized for putting on too many Westerns. Drug companies were told that drug prices were too high.

• **Suggestion Box**—Some stockholder comments were less weighty. IBM was advised to put erasure keys on its typewriters; set up scholarships for stockholders' children; change the colors of its World Trade Corp. to red, white, and blue; and remove its deposits from banks that use competitors' computers.

RCA was urged to telecast its annual meetings in color; to assign its stock a par value because it sounded worthless without one; and to be wary of computer manufacture because businesses might give up data processing. A Melville Shoe Corp. stockholder asked for a discount, and one at Rayonier, Inc., proposed a change of name because rayon is "not considered a growth industry."

• **Awkward Moments**—Some questions were downright awkward. At Anheuser Busch, Inc.'s annual meeting a stockholder forced Chmn. August Busch to divulge his salary. RCA Chmn. David Sarnoff was asked whether he had written his own speech. When Chmn. Thomas J. Watson, Jr., of IBM revealed he had sold some stock to pay taxes incurred in setting up trusts for his children, a woman asked why he hadn't borrowed the money instead.

• **Tedium**—All this dragged many meetings through and beyond the lunch hour. AT&T's ran over five hours; several others were nearly as long.

As a result, some of the attending stockholders were frankly irritated. Long-winded participants were heckled at CBS and booed at U.S. Steel. "I can't stand them any more," said one big steel stockholder. The audience groaned when Mrs. Soss took the microphone at RCA.

Executives were more cautious in their public comments though Chmn. William S. Paley of CBS conceded that he now anticipates annual meetings "with dread." Said Chmn. Roger M. Blough of U.S. Steel, "I realize that these meetings get very tedious because some people take more than their fair share of time."

II. Is It Worth It?

Actually, many executives have mixed emotions about annual meetings. Some fear they are a waste of money and time. What with space rentals, guards, vote tellers, sound equipment, exhibits, giveaway items, lunches—maybe even movie or slide preparation, broadcast facilities, or closed-circuit television—a meeting can run $150,000 or more.

Harold Gartley, president of Gartley & Associates, a public relations firm, estimates that it takes up to 500 man hours to prepare for a two-hour meeting. The physical arrangements present a real problem in logistics. In addition, there are speeches to write and questions to research.

Speech writing is likely to begin months before the meeting. The president's message must be informative enough to anticipate possible stockholder questions yet brief and interesting enough to keep the audience awake.

Despite the help of professional writers and the staff aides armed with reference material supposed to contain the answer to every conceivable question, much of the time invested must be the chief executive's. He must check draft after draft of his speech to make sure it voices his opinions in a style that is natural for him. He must practice its delivery; one president spent 10 days rehearsing with a tape recorder. Sometimes he takes part in a dry run of question-and-answer sessions, tackling queries that often never get asked. If he's new to his job, he may need drilling in the finer points of parliamentary procedure. Usually he's advised to resolve questionable issues in favor of the stockholder.

III. Setting a Balance

All this effort is money down the drain if, as some executives suspect, most stockholders come to a meeting just to be entertained. There is some evidence to support that charge.

Stockholders who raid the product exhibits (as at Standard Brands, Inc.'s annual meeting this spring) are a perennial problem; so are free loaders. "Some of these old ladies have thousands of shares," a public relations man commented, "but from the way they rush for a free lunch you'd think they were starving."

One company wound up serving more than half again as many lunches as it had stockholders registered at the meeting. Its president was taken aback when a woman carrying three box lunches told him, "I wish you'd send one to my sister in New Orleans. She couldn't make it this year."

But, as other observers point out, it was the companies themselves that introduced bread and circuses at the annual meeting. Now they are stuck with the consequences.

More serious is the question of just how far corporate democracy ought to go. Plenty of stockholders have legitimate points to make, however awkward the results may be for the management. But many comments and questions at annual meetings are frivolous, malicious, irrelevant, or incoherent—and lengthy.

Even if they could, few executives would go back to the old days of minority stockholder suppression. Most of them stoutly defend the shareowner's right to hear and be heard. They concede, sometimes reluctantly, that the probing questions that are raised by people like the Gilberts are legitimate—even useful.

Managements are less tolerant of the "crackpots." But definitions of that term vary widely. In any case, it's a delicate job to balance the individual's right to a voice in corporate affairs

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against the other stockholders' time, convenience, and nerves.

• **Trend to Rotate**—So far, nobody has figured out a way to curb the lunatic fringe without also squelching the people who really have something to say. Some observers think the trend to rotate meeting locations reflects a desire to get away from the New York regulars. "In New York," one public relations man points out, "you get the same old crowd."

Companies claim that their motive in moving meeting sites is to make attendance more convenient for stockholders in the hinterlands. Standard Oil Co. (New Jersey) cited shifts in stockholder home bases when it asked the annual meeting this week to O.K. five new cities as meeting locations.

If a quieter meeting actually has been the goal in meeting rotation, it often hasn't worked out that way. The crusaders for stockholder rights are perfectly willing to follow their favorite companies, and "In any large group," says a public relations man, "you will get a certain number of cranks."

Gartley thinks evening and Saturday meetings are the next step. Such sessions might vary the stockholder mix. They ought to bring out more businessmen, Mrs. Soss argued on her NBC radio program a few weeks ago.

• **Tightening Up**—There are other techniques. Some companies adroitly hold the question-and-answer session in check by refusing to serve lunch until the meeting has adjourned—a practice frowned on by the Gilberts. Some steadfastly omit lunch altogether. Mrs. Soss protested du Pont's attitude by arriving for last year's meeting with sandwiches purchased en route.

Some chairmen tighten up on meeting procedures. Standard Brands provided only one microphone this year. Fairbanks Whitney limited each speaker to five minutes. Standard Oil Co. (Ohio) demanded written questions.

But some of these methods are of doubtful legality, and the public relations men argue that they are unwise stockholder relations practice.

Frankness both before and during the meeting is the best way to forestall legitimate stockholder questions, Gartley thinks. Metal & Thermit Corp.'s Pres. H. Z. Martin won praise from Lewis Gilbert this year for the openness of his question-handling. During the recession, Detroit Steel Corp. kept stockholders in touch by frequent letters. When the dividend was cut, there was no criticism.

But frivolous and malicious stockholder hi-jinks are probably an insoluble problem. There's not much management can do but grin and bear it. "After all," the executive will point out, "the stockholders do own the business." END

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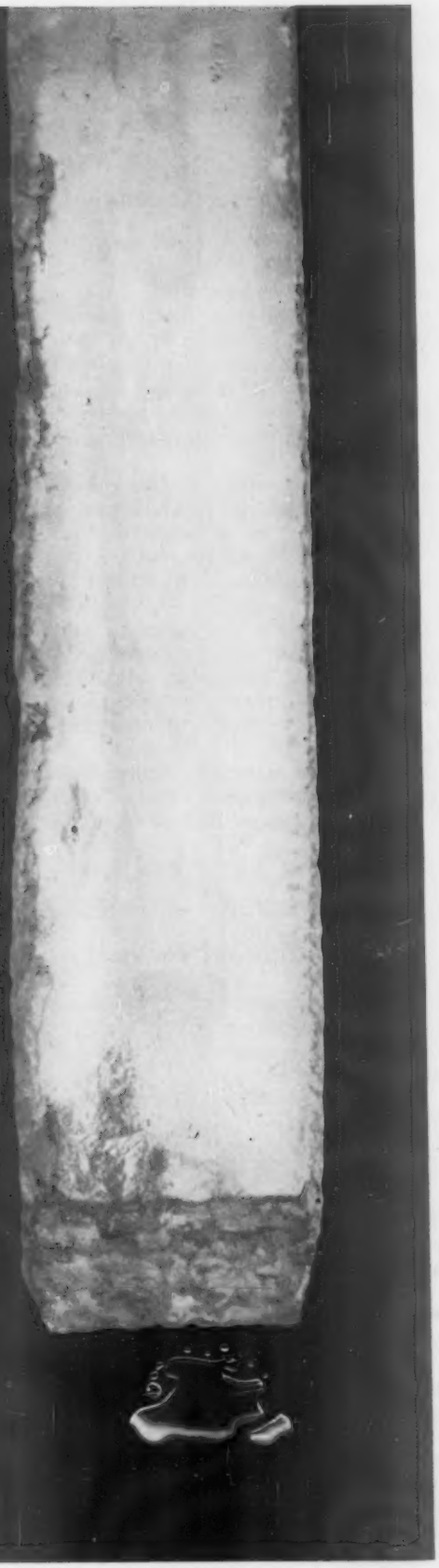

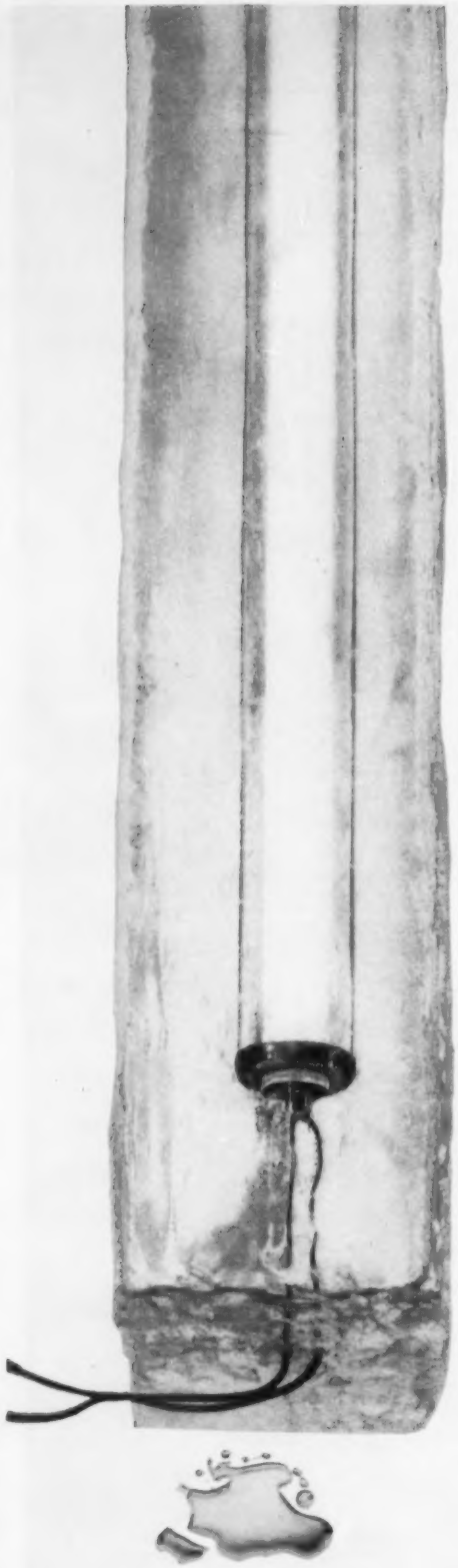

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New President for Eastman Kodak, Only the Seventh in 87 Years

A major shift in the top management of Eastman Kodak Co. took place last week with the election of William S. Vaughn (picture) as the seventh president of the 87-year-old photographic and chemical firm. Vaughn, who had been vice-president and general manager, was also named chief executive officer and a member of the executive committee. These posts go to the company's president automatically under Kodak's bylaws. At the same time, Albert K. Chapman, 69, who was succeeded as president by Vaughn, was elected vice-chairman of the board. M. Wren Gabel, a Kodak vice-president, took over as general manager.

William S. Vaughn

In another executive change last week, Stanley W. Connelly was elected president of Brisch, Inc., a consultant in classification and coding (BW—Mar.26'60, p168). He succeeds the company's founder, Edward G. Brisch, who died last month.

• • •

Most Companies Provide Employees With Travel Accident Insurance

Travel accident insurance for employees is provided by about 75% of the 319 manufacturing companies that answered a survey by the National Industrial Conference Board. Most of the remainder seem to accept some responsibility in this area, although they differ on how this responsibility should be met.

The most popular type of insurance policy is the comprehensive "all-risk" variety, taken by 105 of the companies. This insures not only transportation accidents but any accident that occurs during a business trip. Transportation insurance coverage on public conveyances is provided by 40 companies, 26 give executives 24-hour protection that includes non-business accidents, and 25 insure air travel only.

Of the companies that provide travel insurance, 64% extend the coverage to all their employees. About 17% only insure salaried employees, 6% limit their coverage to management people, and the remainder insure only selected individuals.

Companies that have not taken out travel policies often meet their responsibility by **amending their group life or accident insurance to provide higher or double indemnity in case of travel accidents.** Other companies occasionally purchase single-trip coverage or authorize reimbursement of slot-machine premiums at airports.

Generally speaking, companies that have accident coverage say that they don't reimburse employees for slot-machine insurance, but they admit that most people slip the cost into other items on their expense accounts.

• • •

Management by Committee Favored By Most Executives, Even for Decisions

Despite the barrage of criticism to which committees in business have been subjected, most executives endorse them both in theory and in practice. More than four out of five companies surveyed by the Harvard Business Review have regular or standing committees, the May-June issue of the magazine reports, and fewer than 8% of the more than 1,200 executives polled think they should be abolished.

The problem, HBR concludes, is not so much committees in management as it is the management of committees. The consensus seemed to be that committees are too large (five members are the favored number) and that their meetings tend to take far more time than was originally scheduled.

Top executives spend more time in committee work than middle managers and are also more often pro-committee. On the other hand, small companies have fewer committees than large companies, but small-company executives like committees better.

Most executives favor the use of committees for exchange of information and coordination. **More surprisingly, fewer than half of the group surveyed object to the use of committees for decision-making.**

• • •

Search for Executive Recruits Goes On, And Personnel Men See No Letup

Personnel executives of 91 major corporations feel there will be no letup in the search for executive talent outside their own companies, according to a survey by the American Management Assn. Only one firm said there was no chance of its looking outside in the next two years.

Personnel men in 64% of the companies said they certainly would bring in outsiders during the next two years, and 35% said there was more than a 50-50 chance that they would.

The most mentioned way of recruiting is through informal inquiries among business contacts. More than half the personnel men also mentioned using executive recruiters, associations or college placement bureaus, and advertising. Only 38 said they would get men through personal friends, and 16 expect to hire people through "position wanted" ads.

The main advantage of executive recruiters, according to 37 of the personnel men, is the wide coverage they can provide. But 43 of those who answered the survey thought searchers are too expensive. In their experience, fees ran about 20% on salaries that averaged $21,000. Of those who hired executives without recruiters, half could not estimate their expenses, and the other half calculated the cost at about 11% of an average $17,900 salary.

Outside Experts Spot Buys for Energy Fund

The men who run Energy Fund, a $10-million mutual fund, are buying shares in Chesapeake Instrument Corp., a small company involved in sonar research and development. The decision to buy stemmed directly from an investment policy discussion earlier this month (pictures).

The discussion included Energy Fund's crack team of outside researchers. Outside is the key word. Many investment funds employ outside specialists and consultants, but generally just to backstop their own research staff on points of technology or business trends. At Energy Fund, the outsiders provide the initial research.

This means they carry much of the burden of attaining the top grade investment results that all funds must have to keep on growing. But for Energy and the other funds that do not tack on a loading charge and do not have any sales force—this is especially important.

• **No-Load Funds**—Energy Fund is one of a small minority within the mutual fund industry. For unlike most funds, which have a sales charge tacked on the asset price, Energy is a no-load fund whose shares are sold at net asset value without any extra sales charge. In all, there are only 27 no-loads, whose assets at the end of last year totaled only $375-million, a mere 2.5% of the industry's total of $15-billion.

The main reason for their small size is that "no-loads, unlike load funds, are bought, not sold." Because they do not pay a commission to brokers or salesmen, the no-loads are not brought to the attention of the buying public. In fact, many of the hard-sell funds in the industry look upon the no-loads as nothing more than a competitive nuisance that interferes with the normal way of doing business.

Lacking a sales force to peddle its shares or part-time salesmen to beat the bushes to spread its name, the no-load has only its investment performance as bait. It can't rely on any big reciprocal business from brokerages, although some no-loads say that brokers occasionally recommend purchase of their shares and they are prepared to compensate for this in the form of commissions on sales or purchases of stock. But reciprocal business is small potatoes for the no-loads, and cannot be counted as a means of growth.

• **Performance Tells**—All funds, of course, try to turn in an impressive investment performance. If they didn't, salesmen and brokers would find it difficult to sell them. But salesmen, who are the lifeblood of the load fund business, often stress other virtues to prospective buyers; the no-loads must rely solely on their performance.

This is the biggest difference between the loads and the no-loads. But it is not the only difference. Another significant variation lies in their origins. Most load

MAURITZ EDERSHEIN, of Burnham & Co., is one of Energy Fund's outside experts.

DONALD SAMUEL is a partner in brokerage firm that manages the fund.

WALTER GUTMAN, of R. B. Stearns, Gutman & Co., is an adviser.

PICKING INVESTMENTS. At this May meeting of Energy Fund's officers and advisers, decision to buy Chesapeake Industries was born.

ALBERT M. STONE, Johns Hopkins physicist, is another Energy director.

SCHROEDER BOULTON is a senior Goodbody analyst who helps with advice.

ALFRED J. WILLIAMS, head of an oil exploration company, is a fund director.

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funds were established either by investment trusts or by brokerage houses. The no-loads were started by investment counseling firms, which found they couldn't manage small accounts on a profitable basis. So they pooled these accounts into one fund and followed the custom, used in their big accounts, of charging a management fee but not a sales fee.

• **Different Character**—Because they evolved from counseling firms, most no-loads have a special character, resembling that of a fund directed by a Boston type of prudent trustee. (There are exceptions, though—some funds are run by wheeler-dealer operators who have made a name for themselves as astute investment men.)

There are also big contrasts among the no-loads themselves—in the investment performances they turn in, the management fees they fix, the objectives they offer. The one thing that they can't provide is contractural plans, the hottest gimmick in the mutual fund business, which give salesmen half of their entire commission in the first year of a long-term purchase plan.

• **Expense-Income Ratio**—The no-load funds—with investment record as their sole ace—have averaged a bit better showing than the load funds, after adjustment for the sales charge, during the past 10 years, a period when both types have done fairly well. But men in the no-load funds know perfectly well that they have no automatic assurance of staying ahead, and that their customers do not enjoy the full 8% edge that the loading charge of their rivals would seem to give them. Actually, most no-loads have a higher ratio of expense to income than the load funds. And some of them charge a 1% fee when investors cash in their shares largely to keep traders from moving in and out.

• **Real Measure**—In the last analysis, charge or no charge, investment performance is the only real measure of a fund. On this score, Energy Fund has done well since it was started in 1955.

Energy is one no-load with a difference. It is a self-avowed growth fund. And it is bent on increasing its size—both in assets and in number of shareholders.

I. How It Came to Be

The history of Energy Fund is a bit different from others in its category. It was not the byproduct of an investment counseling firm, but a risk capital venture by partners in the brokerage house of Ralph E. Samuel & Co. and a few of its larger customers.

Samuel & Co. is a 25-year-old house enjoying a good—but not widespread—reputation. It does no bond business, has no branches, and has not engaged in underwriting. Its monetary resources were limited in comparison with some of the older firms that operate trading accounts for taking big positions in special situations. But its partners, and some of its customers, had money available, and pooling it made a tidy pile.

The small group, pretty much like a syndicate operation, risked capital in growth situations. According to Donald G. Samuel, who took over as president of Energy Fund a few months ago, "The risk capital group was a way for us to tap the new atomic energy field."

At the outset, the group raised $600,000, with each participant putting up at least $10,000. Led by Ralph Samuel, father of Donald, they put some funds into run of the mill situations, but the big investments were in companies that promised large potential profits.

• **Family Affair**—The Samuels did not think of their pool of capital as a mutual fund. At the start, it was a closed, family-like affair. But, as time went by, more of Samuel's customers, as well as outsiders, expressed an interest in joining, and the idea of making the pool into a fund took shape.

Samuel and his partners debated a long time over what kind of fund to set up. They rejected the idea of a load fund which, to be successful, entailed a selling force. As Irving L. Straus, Energy vice-president, explains, "They didn't want to become dependent on salesmen, or get entangled in reciprocal business."

They finally decided on a no-load fund, but one aimed at the big investor, not the man in the street. "We wanted people who were capital gains-minded," says Donald Samuel, "because then we could avoid the pressures that come from an income-minded shareholding body." They set the share price above $100 each, far above the industry norm.

• **Hamper**—Looking back, Donald Samuels believes this was a mistake. Although the high price gave the fund a good deal of prestige, it also hampered growth. "We couldn't attract the kind of investor we were after," says Samuel. "Moreover, we found that big investors were more inclined to redeem their shares once they made a profit."

This is why the fund split its shares 10 for 1 last year, bringing the price down to the $10 to $20 range.

• **$20-Million Goal**—While bigness is not one of its aims, partially because Energy men like the flexibility of a manageable portfolio, its directors think that the fund can grow from its present $10-million size to $20-million. Some say that this will take only five years, others twice that. In part it depends on market appreciation, but Energy also has embarked on an aggressive new distribution policy.

Getting new subscribers is tougher for Energy Fund than for those no-loads operated as off-shoots of investment counseling firms; an investment firm is always getting new accounts, and can shovel them into its funds. Energy Fund has to rely on its own distribution setup, particularly since the Samuel firm has run out of potential shareholders from among its own customers.

Last February, Energy took its first steps to pep up sales. It started three different types of accumulation plans, which are rival to the contractual plans of the load funds. It also eliminated its 1% redemption fee.

Its directors say that this is only the start. They are thinking of going after institutional accounts—mainly pension funds. And they hope to find a way to smooth out the ups and downs in the sales of shares, which can be upsetting to investment policy. At present, sales of its shares fluctuate right along with the industry, including the load funds.

At the same time, Samuel & Co. is heartened by the results to date. In the six months ended Mar. 30, the number of its shareholders increased 54% over the 1959 figure, now is over 5,000. Energy men think that the sales campaign has helped, although they attribute most of the rise to the performance of the portfolio over the past year.

II. The Outside Experts

From the beginning, Energy Fund has relied on outside experts to buttress its own research and investment thinking. It took this step because it felt that it could not compete with other outfits, except at great expense. It now has a formidable list of experts, including Walter K. Gutman, a partner of R. B. Stearns, Gutman & Co.; Dr. Albert M. Stone, of the Applied Physics Laboratory at Johns Hopkins; Alfred J. Williams, president of Maracaibo Oil Exploration Co. In addition, it has the help of analysts from Goodbody & Co. (which owns about 5% of Energy Fund's shares), Burnham & Co., Argus Research, and Electric Bond & Share. Another who helps out is Imre de Vegh, manager in his own right of two successful funds. In all, Samuel & Co. pays about $15,000 a year to its advisers, though some take no fee, figuring that the interchange of information is worthwhile.

• **Final Say**—While these advisers provide most of Energy Fund's research, they do not make the final decisions. Samuel & Co., the fund's official manager and chief broker, takes this responsibility and makes its own check before O.K.'ing any recommendations.

At a recent meeting, for example, Ray Frankel, analyst for Electric Bond & Share, recommended that Pacific Automation—an Energy Fund choice—be eliminated from the portfolio as a costly mistake. But Samuel held fast,

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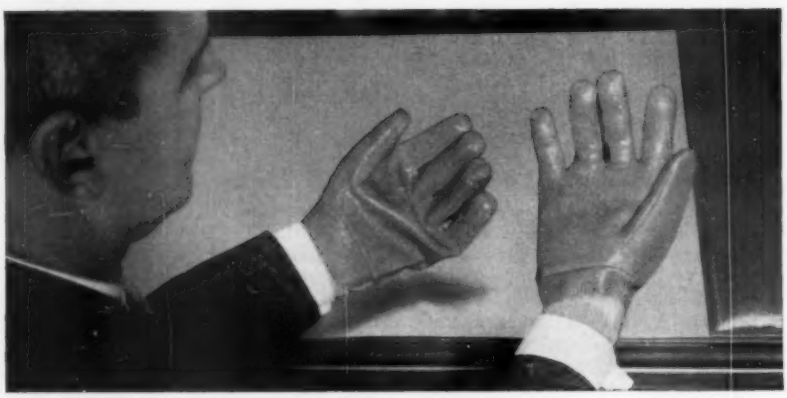

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partly because it hopes that a merger might take the company—and the Fund—off the hook.

Then, Dr. Stone, whose advice on scientific matters is considered invaluable, plugged for a closer look at Lockheed. This was vetoed because Samuel & Co. had already looked over the company and decided against it.

But the group constantly makes new suggestions. Chesapeake Instruments is an example. Actually, Chesapeake's name was never mentioned at the May meeting, but Frankel and Stone got into a discussion of the potential of sonar in submarine detection, tidelands drilling, and other applications. Energy Fund men looked up companies in the field, hit upon Chesapeake.

Sometimes, the advice of the experts backfires. Energy Fund still holds a block of Algom Uranium, in which it has a big loss. Samuel concedes that maybe the stock "slipped away" from us, though he claims it is now more a buy than a sell—how much more he won't say.

III. The Duskier Side

There are some sore points in Energy Fund's good over-all performance. Its capital gains distributions—for a fund that is capital gains minded—are not so good as some others in its class. Still, one director says distributions are about "what is expected."

Dividend income is extremely low, even for a growth fund. Energy people admit this, too, explaining that many of the growth stocks in the portfolio pay no cash dividends.

Donald Samuel admits to some investment mistakes. Ironically, the one he rues the most was failure to buy Polaroid, which he wanted to buy four years ago but ruled out because it fell outside the fund's self-imposed restriction chiefly to stocks in the production, distribution, and transmission of any form of energy.

• **Losers**—Right now, the fund is holding a number of stocks at a loss besides Algom. Three of its oil holdings are below their original purchase price. Gas holdings also are down, along with such individual stocks as American Potash, Allis-Chalmers, and Air Products. But these losses are more than offset by big profits in FXR, Itek, Texas Instruments, Ampex, Litton. Energy Fund is proud of having got into these stocks early, and it constantly seeks such unseasoned ventures.

Heavy investments in electronic stocks—and a few select utility buys early this year—have helped make a fine record for 1960. Net assets are up 2.8% since the start of the year, and net asset value per share last week reached a new high of $21.82. In the same period, most funds have shown declines. END

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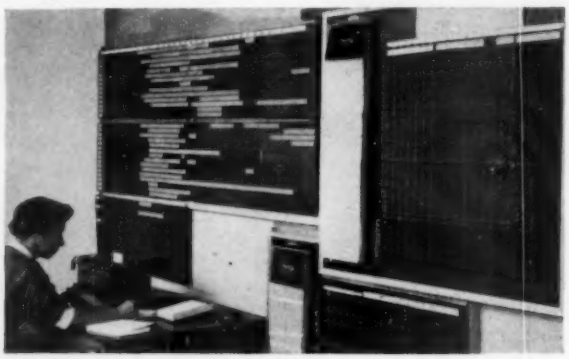

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Wall St. Talks . . .

. . . about Swiss francs, merging Chrysler and American Motors, Canadian funds, Sinclair Venezuelan Oil.

Bankers say the Swiss National Bank intervened in the foreign exchange market this week to restrain the rapid rise in the Swiss franc. The franc has jumped from $0.2305 to $0.2320 because of a flood of "scare capital" coming into Switzerland since the collapse of the summit conference. Foreign exchange experts think the Swiss central bank moved in to maintain an "orderly market."

The rumor of a merger between Chrysler and American Motors has some substance to it, brokers think. They feel that American has the management, Chrysler the resources, including better banking connections, that would make the merger a natural.

Canadian N.R.O. (non-resident-owned) mutual funds are singing the blues because share redemptions have been running far over sales in recent months. William Street Sales, which handles Scudder Fund of Canada, says that fund lost about $2-million in the first five months of the year and estimates that other larger funds may have lost as much as $10-million. Dealers say U.S. investors show a "complete indifference" to Canadian stocks, chiefly because of heavy losses they have sustained on oil and mining shares.

Several major brokerages are counting their losses in the price collapse of the Sinclair Venezuelan Oil Co.—96% owned by Sinclair Oil Corp.—on the American Stock Exchange last month. In one week, the stock, with a thin floating supply, plummeted from 80 to 40, is now trading at about 39 compared to its January high of 113. Brokers say one investor lost heavily after being sold out by his brokers when he was unable to meet a margin call—triggered by the abortive uprising in Venezuela a few weeks ago.

A merger may be brewing between **Associated Oil & Gas Co.** and **Gulf States Development Corp.** The Maguire family of Texas and Connecticut, which has important oil holdings, has a big stake in both companies. For the record, AO&G has only a "no comment" in the face of rumors that the company has virtually completed a Securities & Exchange Commission registration statement covering the deal.

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In the Markets

• • •

Stocks Quietly Sag, but Experts Agree No Sharp Drop Is in View

The stock market quieted down this week, with prices of most issues weakening and the Dow-Jones industrial average falling from 625 to 620. Many "military" stocks that were bid up after the shattering of the Paris summit conference lost some of their gains, while cyclical issues—particularly the steels and autos—also sold off.

Investors apparently are convinced that neither a genuine war scare nor a big setup in Pentagon spending are probable; at the same time, they are concerned over the continuing drop in the rate of steel production, which suggests that the pickup in business is an uneven one.

Wall Street's second thoughts on the aftermath of the summit fiasco do agree that a sharp new decline below the 600 level on the Dow-Jones is improbable. So this week's drop may prove to be only temporary. Most analysts think there will be some increase in government spending, which should help to maintain a high level of business activity. **The consensus is that the market will rise gently rather than sharply, and that the threat of a prolonged drop is now remote.**

A few brokers are considerably more optimistic. Some say that the market is now oversold, and that any move toward higher government spending should lead to new investor buying. They add that if the Federal Reserve should lower margin requirements from the current level of 90%, the market could surprise even the optimists. According to Hugo J. Gelardin of Carl M. Loeb, Rhoades & Co.: "It is taking a little time for investors to digest the changed political situation. But the interest now being shown in scientific issues is sure to increase and should extend to other groups if there is any resumption of inflationary thinking."

There are real doubts, though, that sharp price rises will occur. The Fed itself, which was sounding alarms about inflation all during 1959, now says that the threat has receded. **Nevertheless, there is a possibility that the threat of inflation may return, providing a lift for stocks.** As Sidney B. Lurie of Josephthal & Co. puts it, "As a practical matter, I still feel that inflation is not a new threat. But inflation is as much a state of mind as it is a fact—and inflation psychology thrives in a cold war environment."

• • •

Brokers Protest IRS Tax Ruling On Shares Lent to Short Sellers

Wall Street's major brokerage houses were up in arms this week over a new tax ruling by the Internal Revenue Service—one that could unhinge the stock market's procedure for handling short sales. This is what is happening:

The IRS has decided that investors who allow shares that they own to be lent out to short sellers (who, having sold stock they don't own, have to borrow stock certificates in order to make delivery) are not entitled to the special tax concessions on dividends that present tax laws allow. These amount to an exemption of the first $50 in dividend income from taxation, and an exclusion of 4% of the balance. **IRS says that if the concessions were allowed in this special case then two people, the buyer of the stock sold short and the lender of the stock, would be able to claim concessions for the same dividends.**

The problem for brokers is that much of the stock traded on the stock exchange is held in "street names," and when shares are lent out it's impossible to find out who they belong to and who, according to IRS rules, loses the tax credit.

As a result, **a growing number of investors, just to be on the safe side, are withdrawing permission for their brokers to lend out their stock to short sellers.** And in consequence, there's a potential threat that the supply of stock available for lending to short sellers might dry up. **"It could really hurt liquidity in the market," says one broker.**

But one tax expert believes that the IRS ruling would probably be thrown out if it were ever taken to court. And the **whole controversy may become meaningless if Congress passes a pending bill that would repeal the tax concession for stockholders.**

• • •

SEC Wins Round in Two-Year Fight Against Real Estate Investment Plan

The Securities & Exchange Commission this week won its two-year court fight to throw the Los Angeles Trust Deed & Mortgage Exchange into receivership. In so doing it established its authority to clamp down on the so-called "investment plans" under which LATDME and other firms—particularly in Florida and California—have been selling second mortgages and trust deeds to investors. LATDME promised investors a 10% return on their funds.

LATDME had operated by buying up second mortgages or trust deeds—which are similar to mortgages except that the borrower does not get title to the property—at deep discounts in the open market. These discounted mortgages and deeds were marked up and then sold to investors at a figure calculated to give the 10% yield.

SEC charged that this operation amounted to unregistered public offering of securities, and that the firm did not have enough assets to cover liabilities to customers. SEC also charged that LATDME had mixed up its own funds with those of customers, and that some of the funds left on deposit weren't secured by anything but LATDME's "good faith and credit."

LATDME plans to appeal the decision, and the court order setting up the receivership has been stayed pending the appeal. **The firm is "confident that the decision will be completely reversed as it was in November, 1958,"** referring to the fact that SEC's motion for a preliminary injunction and receivership—which was granted without a trial being held—was thrown out by the Appeals Court.

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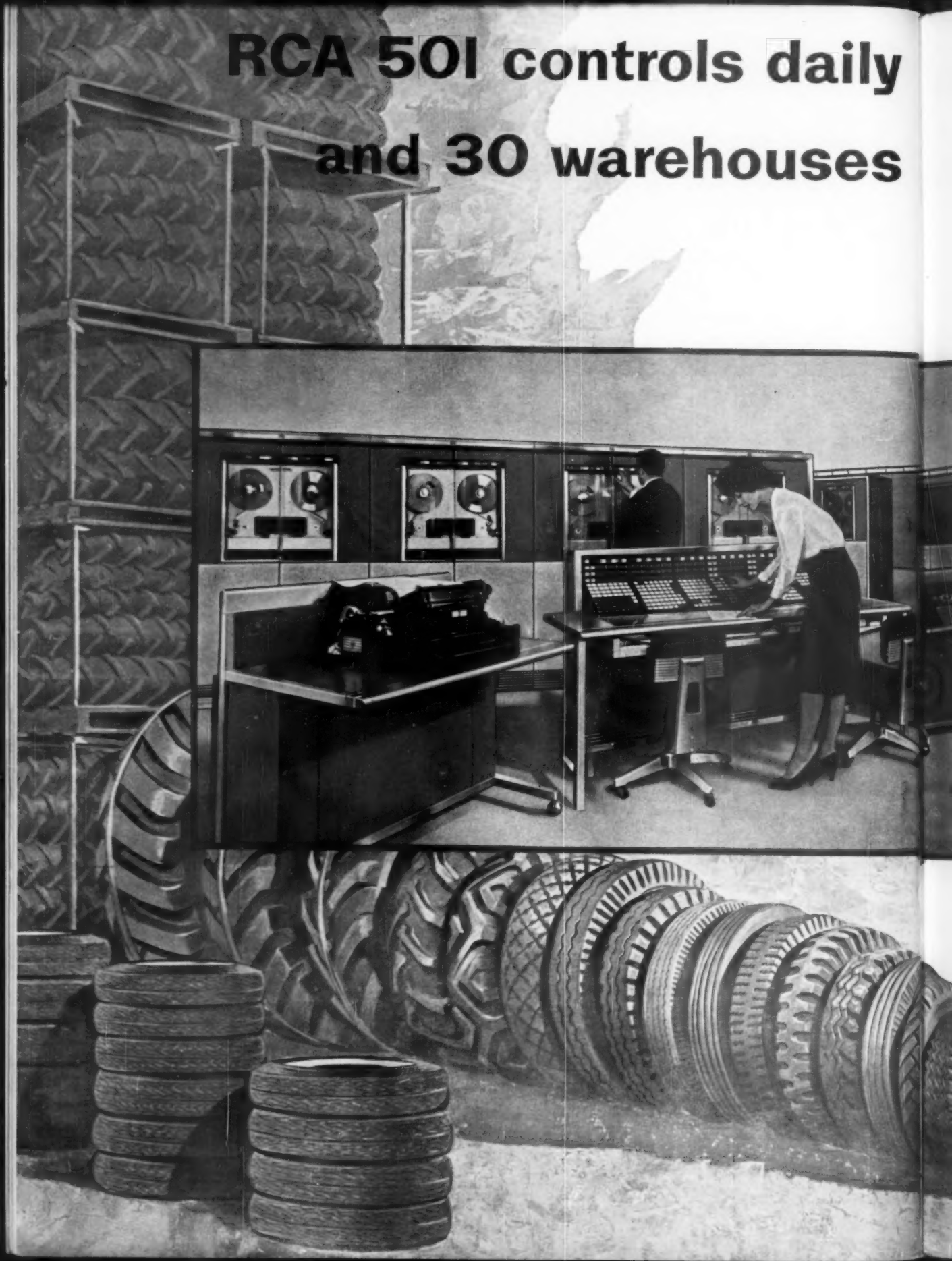

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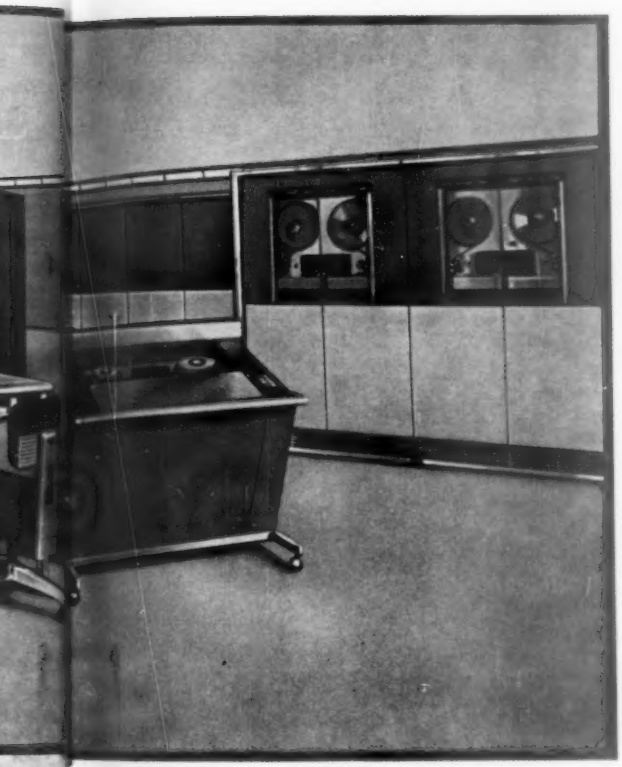

More people travelling more miles by car, greater volumes of goods rolling to more distant markets by truck—these are trends that predict ever greater demand for General tires. The fastest growing company in the rubber industry found that burgeoning paperwork demanded the best in data processing for swift, efficient handling of daily records.

An exhaustive General Tire & Rubber Company study established that the RCA 501 can process all file operations of an average 2,000 daily customer shipments with the dispatch and the high order of accuracy so necessary to their rapid delivery demands. The system easily handles a complex billing operation as well as daily record updating of coast-to-coast inventories, and other assignments.

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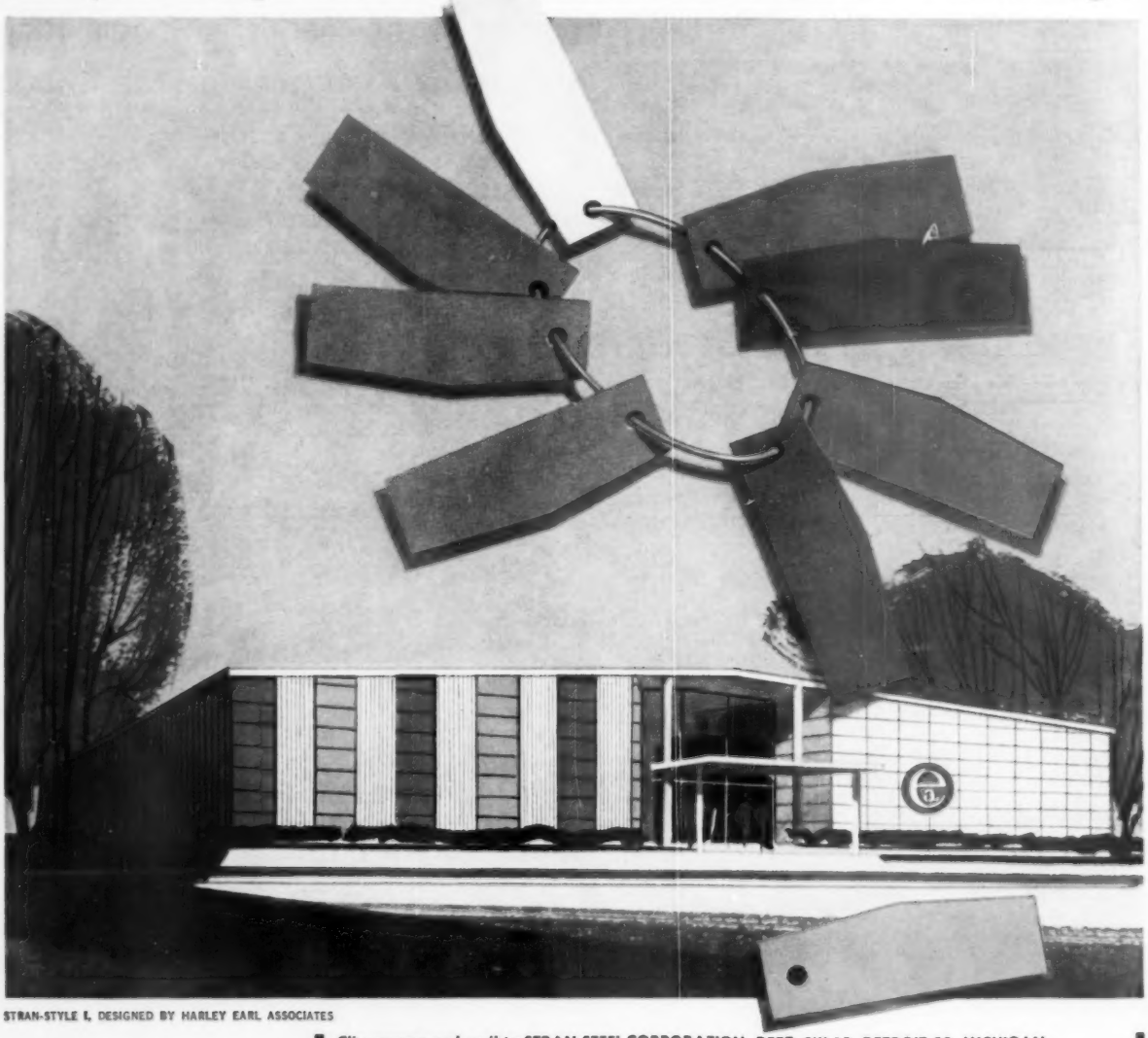

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PERSONAL BUSINESS

BUSINESS WEEK
MAY 28, 1960

With summertime nearing, you may be giving some thought to getting more miles per gallon when motoring—particularly if you have a long trip in mind (page 188).

Experts say the key is how you drive—whether your car is a Cadillac or a Volkswagen. Frankly, it's more important for you to study the mileage you get as a driver than the built-in functioning of your car.

Ever wonder how the economy boys do it? Here are some tips from veterans of economy trials whose job it is to attain maximum fuel savings:

Take it easy. That means accelerating slowly, getting into high gear (whether you have an automatic or conventional shift) at the lowest possible speed without straining the engine.

Avoid stop-and-go driving. In other words, maintain a constant throttle opening and even speed. While, it's true, the best mileage is obtained at around 30 mph., don't block traffic poking along at that rate. Reportedly, if your car delivers 21 mpg. at 30 mph., it will give 20 mpg. at 40 mph., 18 at 50, 16 at 60, 14 at 70. And 12 at 80. So a moderate pace is best.

Try to anticipate traffic and road conditions. For instance, speed up gradually before you climb a hill or pass other vehicles; take your foot off the gas when you see a curve or a stop light ahead. **Remember: Braking burns up energy paid for with gas.**

If you have to stop for more than 30 seconds, shut the engine off. Idling for one minute will consume more gas than needed for starting.

For really record economy, in the jargon of TV commercials, avoid the use of any electrical accessories and keep your windows barely open—to cut down wind pressure. **Also, don't have the fuel tank completely filled—less gas means less weight and also avoids spillage.**

Can you honestly expect to equal the experts with all these precautions and guides? Probably not, and for this reason: **Cars taking part in economy runs may be overtuned at the expense of performance.**

Maybe you've also been thinking this year about air conditioning for your car. Granted, it's somewhat costly and may be detrimental to fuel economy. But it should add vastly to the pleasures of summer motoring.

Automobile air-conditioning units, combined with heaters, range from $369 on Ramblers to $800 on Cadillacs; the average is about $500. **For a separate blower for the back seat, you'll pay an additional $200 or so.**

Bear in mind that you get more than cooling and humidity control in an auto air conditioner. When you drive with the windows closed, you're also freed from dust, dirt, and irritating noises—thereby reducing fatigue. **Nearly half of Detroit's luxury cars now are ordered with air conditioning.**

On low-priced cars, the installation rate is only about 3%. While makers of the new compact cars expect to have some units available for dealer installation, it generally takes a big engine to operate air conditioning successfully.

One caution about air conditioning your car: It may have a tendency to overheat the engine, especially in heavy city traffic where there's a great deal of stop-and-go driving.

If, by the way, your car engine does become overheated in hot weather, don't have water added until the engine has cooled. And keep

the motor running during the refilling so the water will circulate. Another suggestion is to idle the motor after a hard run, allowing it to cool gradually, otherwise the water in the radiator may "afterboil" and overflow.

A final note: Having your car serviced for summer driving usually heads off possible breakdowns, no matter what the temperature. And, if it's time for an oil change and oil filter replacement, you may want to order **a multi-viscosity oil. Detroiters recommend it for fuel economy.**

—•—

Pension bills: Chances that some version of the Simpson-Keogh bill—providing pension plans for self-employed professionals and others—will be passed by Congress look fairly good, according to Washington sources (BW—Apr.2'60,p112). But don't expect the Treasury's move to tighten up on pension plans of owner-managers of small companies to make the Congressional grade this session.

This is how the proposed legislation is shaping up: The Senate Finance Committee probably will approve a self-employed pension bill along the general lines of the House-adopted Simpson-Keogh bill, then later on move to correct abuses the Treasury sees in the existing law on pensions for owner-managers.

The House bill gives a self-employed person an annual tax deduction up to $2,500 for contributions to an approved retirement plan. The Treasury, on the other hand, wants to limit tax deductible contributions of owner-managers to 10% of income or $2,500 a year, whichever is smaller, in cases where employees are not substantially provided for.

—•—

Margin cutback? Possibility of the Federal Reserve Board's cutting the present 90% stock margin requirement, on the horizon now for some time, looks a little closer. Should the cut come, it may go back to anywhere from 70% to 50% (BW—May21'60,p167).

Incidentally, a new IRS ruling says that you, as the owner of stock sold short by your broker, can no longer benefit from either the $50 federal income tax exemption or from the 4% dividends received credit involved in a deal of this kind.

—•—

If you hold a GI life insurance policy you can look forward to a modest increase in your dividend check this year. Range: 50-year-old World War II vets will get slightly over $60 on $10,000 policies. Holders of permanent policies will get about 20¢ more for each $1,000 of insurance, or a maximum of around $2 for $10,000 policies. If you hold GI term insurance, you'll probably collect only a few cents more per $1,000. The increases will be the first under a new government formula gradually increasing GI insurance dividends over the next 15 years.

—•—

Potpourri: Just introduced for controlling cholesterol, associated with heart and artery diseases, is the drug **MER/29** by Merrell; available in capsule form on prescription (BW—Jan.30'60,p97) . . . **You can rent a chauffeur-driven Rolls-Royce in New York for $9 an hour through a new service,** Buckingham Livery . . . 1961 All America Rose award winners, **Duet** (hybrid tea) and **Pink Parfait** (grandiflora) will grow anywhere in the U. S.; on sale in the fall . . . Bridge players won't want to pass up Jack Olsen's **The Mad World of Bridge** (Holt, Rinehart and Winston, $3.95).

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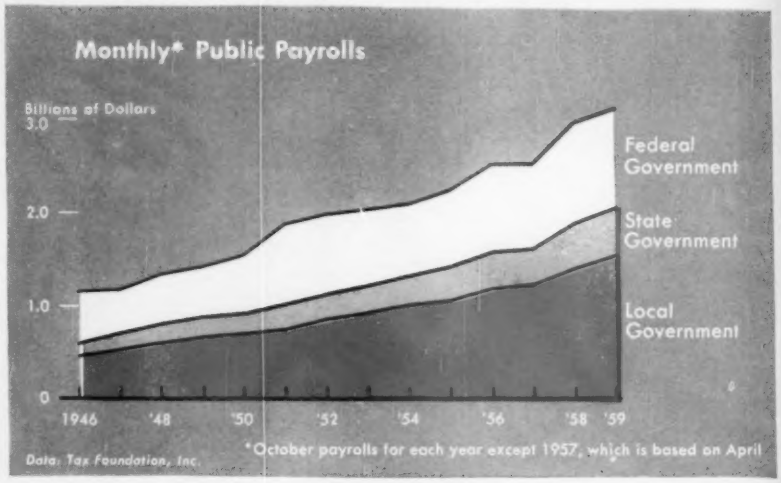

Doubled in 10 Years

Last October, the vast tribe of government workers—8½-million of them in federal, state, and local ranks—collected $3.1-billion in monthly paychecks. This represented a 4.6% increase over October of the previous year, and more than double the monthly payroll of 10 years earlier.

Almost two-thirds of the total was paid to employees of state and local governments. From 1951 to 1959, the number of full-time workers in state and local governments rose 40%, and monthly payrolls doubled.

There were actually 35,000 fewer federal civilian employees in October, 1959, than in October, 1946. In the same period, the number of persons on state and local payrolls increased by nearly 2-million.

Taxes Bite the Motorist Harder

One reason for the increasing popularity of small automobiles is reflected in the above chart—the mounting cost of gasoline.

In March, 1960, the average service station price of motor fuel was 30.32¢ per gal. Of this, 10.12¢—more than a third—went into federal, state, and local tax coffers. Five years ago the tax was 7.65¢ per gal; 10 years ago, 6.52¢.

Since the end of World War II, the tax bite has deepened more than 66%, while the corresponding increase in the service station price, excluding tax, has been less than 38%.

Last year, all levels of government

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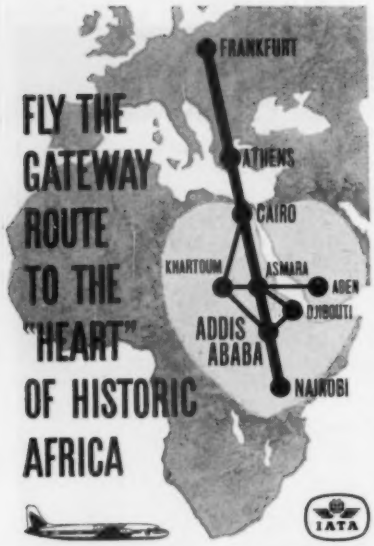

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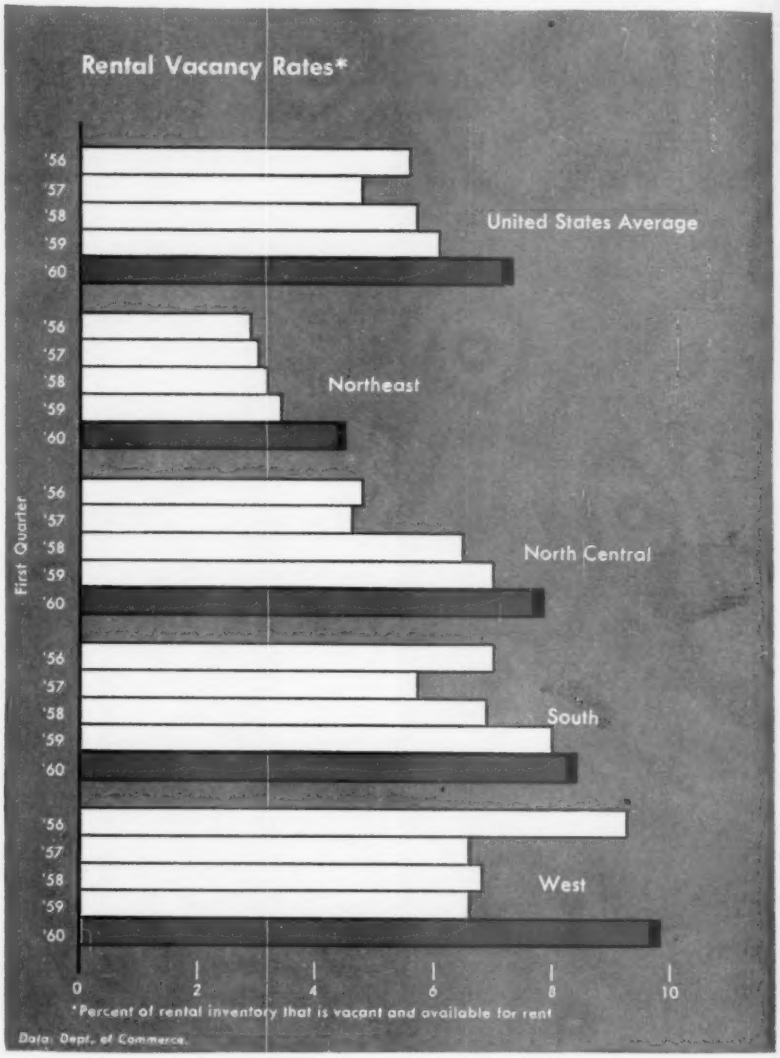
collected a total of $4.9-billion in motor fuel taxes. The Bureau of Public Roads forecasts that this will rise to $5.6-billion in 1960.

The consumer is fighting back with the only weapon available to him: He uses less gasoline by driving the smaller cars.



New Building Is Easing the Jam

It was a lot easier to rent an apartment or house early in 1960 than it has been for a long time. The housing jam eased considerably as a result of construction of new multi-family units and rehabilitation of some older ones.

Available dwelling units during the first quarter of the year represented 7.2% of the rental inventory, a new postwar high and a substantial improvement over the same period last year, when the rate stood at 6.1%.

Geographically, the vacancy rate was lowest in the Northeast, only 4.4%; but this region with its dense and mobile population usually suffers most. Yet even here, the rate was considerably better than last year's 3.4%.

The vacancy rate in the western states hit a new high of 9.7%, the highest in the nation and a very impressive gain over last year's 6.6%. The West Coast, particularly California, has had heavy residential building, both private and multi-family units, in the past two years, and this has eased the pressure on the rental market. The shift of emphasis in defense activities also has been a contributing factor.

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South Carolina's great reservoir of workers at *every* level reveals a readiness to perfect new skills that has enabled incoming industry to reach new highs of productivity in record time.

Manufacturers coming into the State invariably report that worker enthusiasm and pride in employment are the key to the unusually fine management-labor relationship existing throughout South Carolina.

Add to young people and young ideas the many other advantages South Carolina offers, and the answer is clear: *greater net profits for industry of every type.*

No wonder progressive business leaders everywhere are looking to South Carolina . . . the vigorous young opportunity-land for industry.

• • •

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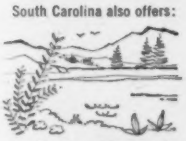

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South Carolina . . . *vigorous young opportunity-land for industry*

FISHERMAN scours Maine inlet for his share of the more than 20-million lb. of lobsters caught in state each year.

CLAM DIGGERS flounder through the deep black mud of Maine coastal swamps, digging up their contribution to seafood.

SALTWATER FARM packer puts up package. Myers offers lobsters (right), clams (center), flavored with seaweed.

INDUSTRIES

They Said He Would Get Clawed

Edward Myers (left) seemed a cinch to lose his shirt on lobsters. But he's cashing in more and more on crustaceans.

The bright young men at Harvard Business School considered a few years ago the case of Edward A. Myers, head of Saltwater Farm, Inc. "Put yourself in his place," they were told, "and prepare a report on how you would run the company."

For guidance, they were told that Saltwater Farm sells live lobsters by mail order. It must operate from the lobster-rich coast of Maine, but its customers, who are among only the top 5% or 6% in income, live anywhere from 500 to 3,000 miles away. It must contend with the wild weather of Maine, the odd biological habits of crustaceans, the temperamental ways of lobster fishermen, and the peaks and valleys of shifting seasonal demand. It must buy its product at widely varying prices but must sell it all year at a standard price.

Harvard's class considered the problems. Myers, who was sitting unidentified in the back of the room, recalls: "The consensus was: 'I'd quit right now, before I lost my shirt.'"

That was four years ago. Myers and his Saltwater Farm, at Damariscotta, Me., are working harder than ever now, filling orders for live lobsters in odd lots that cost from almost $16 to a little more than $33 a barrel.

• **Lobster Days**—This is the busiest season of the year for Myers and his staff of 11. As spring and summer move northward through the nation, those customers of his in the top 5% to 6% income brackets spend less of their time inside their dining rooms and more on their patios. Once outside, there is a far greater chance they will spend mealtimes tearing at lobsters.

All the inlets of the Maine coast have been echoing these last few weeks to the sounds of hammers and saws and the backfiring of winter-stored marine engines as the state's 6,000-odd licensed lobster fishermen prepare their traps and boats and sailing gear for the busy season of the year. Fewer than one-third of them battle the weather to fish during the winter—then, they seek work in lumber camps and pulp mills—but almost every one of them has his equipment ready before the summer.

• **Stakes**—This is a time for hard bargaining as well as carpentry. The lobster fishermen might be reckoned at first meeting as the epitome of northern New England's dour, independent souls. They are only relatively independent. Most of them must get their stake for the season—in new equipment, fuel, and bait—from the lobster buyers, the men to whom they sell their catch.

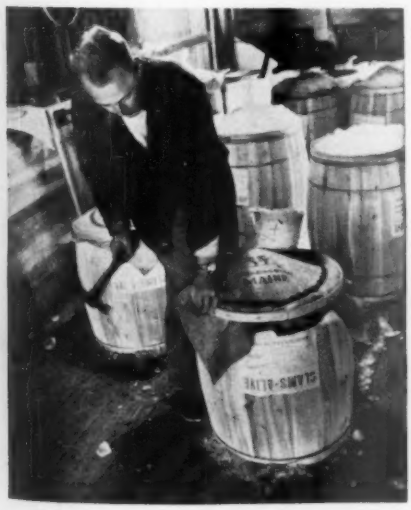
The buyers maintain docks, fuel tanks, storage sheds for the catch, and they, too, seem classically independent men. But the buyers, in turn, must get their stake from the lobster dealers, the men to whom they sell the fishermen's catch.

The dealers borrow from banks.

• **Out of Step**—Myers and his Saltwater Farm do not fit neatly into this maze of interdependent interests. He is, to an extent, a dealer. But whereas almost all other dealers ship their lobsters in bulk to the major cities or to canning plants, Myers carefully bundles his live lobsters into steel drums, packs the drums into wooden barrels, and ships the package by Railway Express to his individual customers all over the country. Packed with the lobsters goes a bundle of seaweed collected from the rocky coast of Maine, and usually some clams. To cook: Punch a couple of holes in the lid of the drum, pour in salted water, and boil. It's a pre-Colonial recipe; the Indians cooked just such a mixture centuries ago.

• **Bait Problems**—That may sound a simple enough job. But Myers has many things to contend with, all of them having a bearing on the price he must pay for lobsters.

At the start, there's the matter of bait. Lobster fishermen use fish called alewives as bait—or rather, what remains of the alewives after fish processing plants have taken what they want. The processing plants slice the fillets from the alewives and sell the frozen fillets to food stores. Head, tail, and backbone go for bait. It takes a bushel of alewives—$2 worth—to bait 60 lobster traps and rarely does a fisherman get



LOBSTERS in cans go into ice-filled barrels for shipment all over the country. They'll still be alive at destinations.

DAMARISCOTTA'S old railroad freight station is now headquarters of Myers' Saltwater Farm. Here office staff keeps track of orders, which come mostly from nation's midsection, and packers prepare barrels for shipment by truck and Railway Express.

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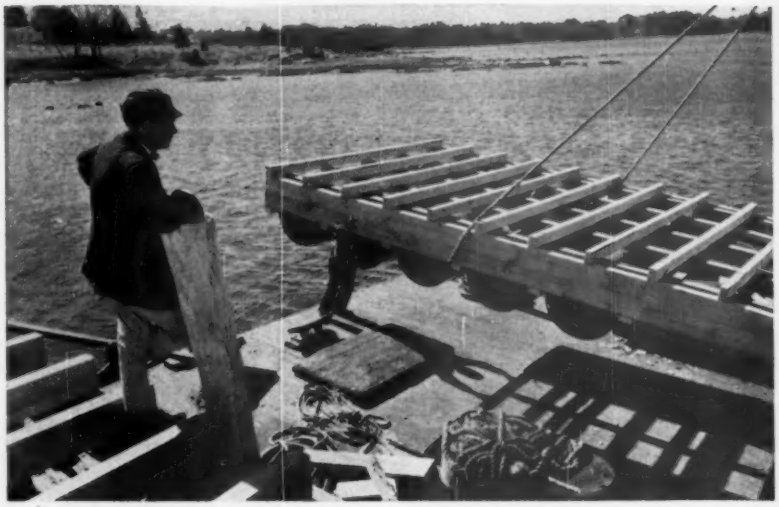

FLOATING DOCK swings into position on Damariscotta waterfront as Myers expands Saltwater Farm's work by opening pleasure-boat dock and seafood restaurant.

more than one or two legal-sized lobsters from one trap.

Every year for the last decade the bait supply has been getting smaller—and the price has been rising. More and more of the alewives' remains go to other processing plants where they are ground up and canned for cat food. The cat population of the nation has been rising steadily, and in an affluent society the cats are living better than ever.

I. Year of the Lobster

Once caught, lobsters can be kept in pounds—dammed up sections of coves and inlets. In fact, they're best when kept in pounds on a light diet, for they taste better when starved a little.

Maine's great run of lobsters usually begins in July, reaches its peak in September, and tapers off by December. In early spring, the lobster grows a size larger by shedding its shell. While the new shell grows, the lobster is soft and defenseless; it hides under a rock and rarely ventures out for food. By May, though its shell is still not at its hardest, hunger begins to force it out—and into the traps. And all through the summer, as its shell grows harder, the lobster grows more and more foolhardy. Last year, an almost average year, some 22-million lb. of lobsters were caught in Maine, and nearly half of them were trapped from July through September.

Those that are trapped when they're still soft-shelled go to the pounds that are operated by the lobster dealers. There they wait until their shells are hard enough for them to be shipped to market. Tens of thousands from the rich late summer catch go to pounds, too, for they far exceed the market's demand at the time and must be kept to meet the high and sudden end of the year demand at Christmas and New Year. To get the lobsters out of the pound, the dealer simply sends in men shod in wading boots and equipped with long-handled and capacious nets.

• **Speculation**—The dangerous art of speculation enters the business here. The dealers want to buy when the price is lowest, put the lobsters in their pounds, and ship them later when prices rise. Last year, the price paid to Maine's lobster fishermen ranged from $1.06 a lb. in the depths of the foul weather in March down to less than 43¢ a lb. at the end of the great yearly run in November.

Sounds like easy speculation? It isn't. For one thing, Canada's lobster catch is about double the size of Maine's and a good run in Canadian waters in early fall can suddenly depress the price for a month or two, leaving the dealer with relatively expensive lobsters in his pound. Worse than that, lobsters in pounds are subject to a bacterial disease called redtail that in 10 days can wipe out tens of thousands of carefully pounded lobsters. Lobsters also have the unfortunate habit of cannibalism; in a pound, the strong will devour the weak with alarming rapidity.

• **Only the Fittest**—These menaces face all lobster dealers, but they pose more of a threat to Myers than to most others. The nature of his operation demands that he ship to his customers only the fittest of lobsters. A damaged lobster with claws or legs missing can go to a cannery. One that's weak can go to the markets in the major cities; it will arrive and be sold before it's damaged any further. But Myers' lobsters have to survive long journeys by Railway Express and must be in good

A REPORT TO MANAGEMENT ON HOW

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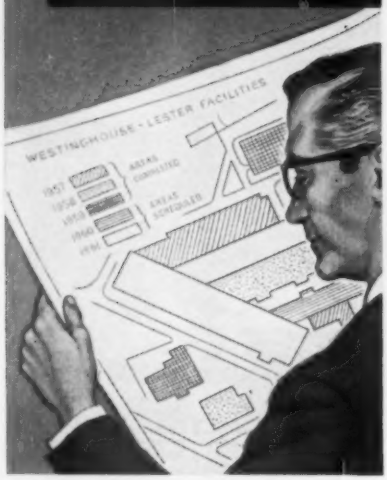

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condition when they reach their destinations, for Myers depends on direct sales to his customers. If a shipment isn't in proper shape when it arrives he can be pretty sure that he has lost a customer.

II. Touch of Culture

Those customers are mostly in the vast midsection of the nation, from Texas to Chicago, from Tennessee to the Sierras. (Californians and Northwesterners seem to prefer their own types of seafood.) New York is a sizable market for him, but nowhere near as large as its population might indicate, because New Yorkers can get plenty of live lobsters from bulk dealers.

West of the Alleghanies, buying a lobster from the local fish shop is often regarded as a suicidal step. This is an inherited reaction from decades ago when refrigerated transport wasn't so common and when lobsters would arrive in various stages of decomposition. It's nowhere near so risky now, but the suspicion lingers.

There's a good deal less of this suspicion among the high-income group that forms Myers' potential market. As dozens of studies in the last few years have shown, many of these people are ready to try anything from Picasso to compact cars so long as it has some kind of cultural cachet. Of course, there are plenty of them who just like lobster, too.

• **One of a Kind**—The competition for Myers' potential market is not exactly boisterous. Myers claims he was the first and is so far the only one to set up just his kind of operation, and so far as BUSINESS WEEK can establish this is correct. Several others do offer lobsters by mail order, but they do not select and pack the lobsters themselves. They supply packages to the larger dealers and the dealers fill their orders. About a dozen such operations are going at any one time, but there's a high turnover among them.

When Myers first started, 10 years ago, he ran a business just like those of his present nearest competitors, selling by mail order and paying major dealers to fill orders. But as his business grew he couldn't keep close control over quality and gradually his business began to interfere with the major dealers' regular operations. So, in 1955, he changed his approach.

Now he gets his supplies from half a dozen lobster buyers, keeps his own lobster pounds, packs his own barrels. Clam diggers—who need only hip-boots and a basket for equipment, plus a good eye, a firm hand, and a readiness to stagger around in the knee-deep mud of Maine inlets—sell their contribution to the package directly to him.

Today, Myers grosses a little less than $500,000 a year from Saltwater Farm. His payroll runs to $60,000 a year and his advertising budget—his only means of reaching his customers—to $40,000 a year. How much is left at the end of a year he regards as a matter between himself and the Internal Revenue Service. But he admits that he lives comfortably.

• **"Lobsters Were a Natural"**—It wasn't always like this. Myers, now 43, went to Maine in 1949 determined to quit the rat-race of the city, and to live in the area where he had spent many summer vacations. Until then he had been a member of Princeton University's administration, engaged primarily in preparing fund-raising programs. He landed in Maine with enough capital to keep himself and his family for six months.

"Maine was just the place, I decided," he says. "I was determined to run my own business and in Maine it's well known that salaries are too low for any but hardy natives to live on.

"I thought of opening a coin-operated laundry, but it soon became clear that the profits were pretty slim. I considered the canning business but I found that most of the canneries exist only by their owners' ingenuity. If the owner himself weren't able to fix his boiler when it went wrong, all the profits would disappear. There isn't enough left over to pay a repair bill.

"Then it became apparent that the only business to run in Maine is one that draws its income from outside the state. . . . Lobsters were a natural."

It was a struggle for the first three years. "Because we were incorporated, I had to pay myself the federal minimum wage. That was a pinch on the business," he says. But then he passed the breakeven point and has kept going on from there.

• **Pegged to Dow-Jones**—In his decade among the lobsters, Myers has lived through the sweeping rise of the Dow-Jones stock price index. This is a vital ingredient of his business. He has not worked out a careful chart, but he believes his business almost parallels the movement of the Dow-Jones index. It's certainly far closer to that than to the industrial production index. Through the 1957-58 recession, his business wavered only a little; things were tough in Gary, but the Dow-Jones dip was brief and not too severe, and the Near North Side and all its counterparts didn't suffer. Last March, when the market hit its 1960 low and the Dow theory signaled that a bear market lay ahead, Myers' orders dropped right along with the index. Since then, the Dow theory's predictions have been seriously questioned, and Myers' orders are up again.

So it goes in a business that depends on only the upper-income brackets. END

Laminated wooden beams protected with a Sisalkraft paper. Picture, courtesy of Unit Structures Incorporated, Peshtigo, Wisconsin.

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Formula for Profit—Middle-Income Rents

It was in January, 1951, that small-time Brooklyn builder Samuel J. Lefrak (picture) scraped together $50,000 with the distinct intention of getting himself into the big time. Taking his money to the State Supreme Court in Manhattan, where 29 pieces of real estate and 20 mortgages once belonging to the New York Title & Mortgage Co. were being liquidated as a package at a public auction, Lefrak entered a high bid of $5-million.

To the rest of the 400 bidders, many representing the biggest realty buyers in the U. S., the Lefrak bid seemed like folly. The minimum acceptable price imposed by the court was $4,350,000. When the bidding went over $4.9-million, most dropped out—but it was only then that Lefrak put in his first bid. In the judgment of many others at the auction, $650,000 more than the minimum was too high a price.

Several also guessed, correctly, that Lefrak didn't have the 10% downpayment that was due in three weeks—even though he had turned down an offer in the courtroom from a syndicate that wanted to go in with him. As Lefrak handed over his $50,000 binder, Justice William C. Hecht inquired "Where will you get the rest of the money?"

• **Enough to Start**—Lefrak figured, somewhat naively, that he would just go to the banks and borrow the $4,950,000 balance, using the realty package as security. But the story of "Lefrak's folly" preceded him, and his stature as a builder, businessman, and borrower was then slight. Bank after bank turned him down on a loan so large.

As the downpayment deadline neared, Lefrak stopped trying to borrow the full $4,950,000. What he needed right away was the 10% downpayment. Choosing the 10 most valuable of the 29 properties, he offered these as security for loans totaling $450,000. This time lenders didn't hesitate; in fact, they let him have the money at 3½%, since all 10 pieces of real estate were up-to-date buildings with high yields of rental income.

In the months that followed, Lefrak managed to drum up financing for the rest of his purchase; but he had to pay anywhere from 4½% to 6%. Eventually, he sold all these other parcels at a loss—below their assessed valuation, that is, since the purchase price was a lump sum for the whole package.

But with the large tax deductions they provided, and the high yields of the 10 prime properties, which he kept, Lefrak opened up a considerable flow of cash. And this helped persuade lenders to extend credit for the large-scale building he had in mind. His move into big-scale building also had the advantage of near-perfect timing. Real estate values were spiraling, and were destined to keep on spiraling.

• **Growth Story**—Today nine years away from that shaky entry into the big time, Lefrak's operations tell a story of the runaway growth that can happen in the real estate business. With a stake in more than half a dozen cities across the country, Lefrak is tapping profitably a market—middle-income housing—that few others have been able to cash in on without some form of guarantee, such as FHA-insured mortgages.

The Lefrak Organization, a partnership since 1940 when Samuel Lefrak joined his father Harry, was an insignificant construction company. The younger Lefrak soon took charge. Using the courtroom deal as a financial springboard, he began putting up more apartment buildings each year. By 1957, the number had grown to 2,000 new apartments for the year, mostly in New York's Queens and Brooklyn areas. In 1958 the number went to 2,500. Last year it jumped to 4,600.

• **Ambitious**—That's just a beginning, though, Lefrak boasts. This year he has eight apartment and office building developments in final planning stages, under construction, or already finished—total cost, $48.5-million. Lefrak is also preparing a $22-million bid to build three 24-story apartment buildings in lower Manhattan, and is negotiating for a $5.75-million development in Vitoria, Brazil, to house workers at a new steel plant.

His most ambitious plan so far was just announced—the $125-million Lefrak City, a 20-building development and shopping center in Queens that will have 5,000 apartments when it's finished in 1964 (BW—May14'60,p36). Lefrak City also promises an imposing array of underground garages, an office building, two theatres, a heliport, tennis courts, 10 swimming pools, fountains, formal gardens, and recreation areas.

Lefrak has plans to build a power plant on the site, is looking into the practicability of a nuclear plant. Nuclear power is currently being produced at 30 to 35 mills per kwh. at Shippingport, Pa.; New York's Consolidated Edison may get costs below 13 mills at its site up the Hudson River. Electricity produced by conventional fuels costs 8 to 10 mills in New York.

BUILDER Samuel Lefrak in 10 years turned $50,000 into $100-million setup putting up middle-income apartments.

• **Don't Sell**—Through this rapid expansion, the Lefrak partnership has had one fundamental rule. It has never sold a building that it has built.

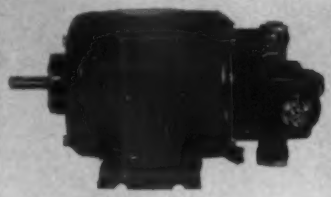
Today, a long list of 250 corporations set up under the partnership own and collect rents from more than 200 buildings, most of them built by Lefrak. Outside of New York, revenue comes from apartment buildings owned outright or jointly in Washington, Baltimore, Philadelphia, Boston, Los Angeles, Dallas, and Minneapolis.

The Lefrak Organization's partnership setup blocks off any public view of its balance sheet or statements, but Lefrak will admit that "assets are well over $100-million."

I. Watching the Costs

Lefrak is no office-bound businessman. At 42, he is still the freewheeling builder who picks sites, inspects construction, negotiates loans, and makes most of the decisions, large and small. It was his decision to build the $125-million Lefrak City, but it was also he who decided to mix cement on-site at a Queens building job to save money.

He has put together a management



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team so large that he "can't remember how many vice-presidents there are." Yet these executives make no policy, only a few major decisions. Rather, they put Lefrak's decisions into motion. In a sense, they are like caretakers of the Lefrak holdings—supervising, preserving, administering them once they have become income-producing.

Lefrak's executive vice-president and No. 1 man is Arthur Klein, whom Lefrak introduces as "a certified public accountant." Klein, as head of the Finance Dept., has more details of Lefrak's financial status at his fingertips than Lefrak himself. Lefrak, describing his position, says of loan negotiations, for example, "I make the deal and he cleans it up."

Theodore V. Kahner, vice-president of commercial and industrial development, also stands high with Lefrak. He is leasing and renting administrator of the Lefrak buildings, and president of Life Realty, a subsidiary through which Lefrak does much of his own insuring.

• **Maze**—The Lefrak Organization is a maze of departments, some of them controlling lesser departments. "No man for details," Lefrak organized the setup essentially to feed him information, and to put into motion decisions to build, buy, or borrow.

The Architecture Dept., for example, got the go-ahead to design Lefrak City's 20 apartment buildings only after Lefrak got the idea for a wheel-and-spoke arrangement from a magazine he was reading in a New York steam room. A Legal Dept. keeps him posted on building codes, also buttonholes state legislators "to talk over code revisions." (Lefrak denies that he ever does any lobbying.)

The Construction Dept. buys materials, heavy equipment, building supplies and, with Field Engineering, makes site studies, then builds. Research right now is on the hunt for cheaper building materials—such as lightweight aggregates to mix with concrete in place of stone.

• **Cost Obsession**—If there's any single reason for the steady expansion of Lefrak profits, assets, and building programs, it is Lefrak's almost obsessive effort to control his costs. This is especially important for him, since he builds apartments mainly for people in the middle-income range—though his newest, at $40 or more a room, are likely to draw from the top end of that scale. In the past, rents, or the maintenance costs of some cooperative ownership buildings he has put up, have come well below this figure, however.

In the New York region, where labor, materials, taxes, debt, land are as costly as they come, this is no ordinary accomplishment. Even while building is going on labor costs, materials, and taxes can rise, upsetting cost calculations. If there are other equity investors, they often get 20% to 30% on their money. A builder looks for a similar return, but may often have to settle for less or boost rents. These cost conditions have usually meant apartment rentals of $50 to $100 or more a room, depending on how close they are to the center of Manhattan.

• **Early Bird**—Lefrak uses some of his incoming funds (he will say only that his gross income "is large") to hold down costs by buying early. He has bought steel and bricks "at distress prices and warehoused them until we could use them." He buys land years in advance, sometimes for speculation but most often for building sites—he started buying the Lefrak City site in 1946. When New York City extended its subway system to Long Island's Far Rockaway, he was "already there on key corners." When New York's Third Avenue began to boom not long ago, Lefrak bought in, later sold out.

Cost control extends to building techniques, too. Lefrak will literally dig deep into a site before designing a building. His Engineering Dept. took 500 corings of the 40-acre Lefrak City to determine to the precise pound how much weight it would support. It made temperature tests on the local water supply, calculated pressure and volume so the air-conditioning system could be built without equipment to chill the water that will be used for cooling.

• **Finessing the Finance**—Though Lefrak is purposely vague about financing details, his approach to lenders is that of a man who really doesn't need the money—at least not desperately. Ever since his vain search for $5-million to cover his courtroom bid, he has kept plenty of cash in reserve and—despite mortgages—fostered a steady cash flow ($30-million a year, he says) from depreciation and earnings of the partnership's 200 buildings.

He plays up this cash flow when he goes looking for money, and in the past few years has borrowed from more than a score of banks and insurance companies at rates close to prime and under few restrictions. Says Lefrak: "We keep a bull-pen of reserves for financing. Some of the properties are on a free and clear basis to back up the needs of future funding."

II. Middle-Income Future

The fact that Lefrak can also show lenders apartment occupancy rates close to 100% shows how well he has tapped the middle-income market. Most builders feel this market is not worth building for, but Lefrak regards it as a seller's market, bases his long-range building plans on its expansion.

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explosion and the sizzling Sixties," he says, pointing out also that the age span of people is being extended.

In his calculations, he has one eye on the large number of tall office buildings going up in New York, another on the city's future as a cultural center. Both, he feels, will add many people to the housing market. The trick, of course, will be to keep rents in figures middle-income people can pay, in the $30 to $40 a room range. Even that eliminates many a wage earner.

• **Impatient**—Lefrak's career in building mostly for middle-income tenants, and making money for himself doing it, has made him impatient with other builders, lenders, government financing programs, and their "underlings." He has, in fact, accepted a role as champion of the middle-income earner.

Before Congress, he once accused the legislators and the Administration of mismanagement through grants of funds "allocated to the speculator and manipulator." He accuses the Federal Housing Administration of "perpetrating windfalls" in the past. Today, he says, it backs construction "that rents from $55 to $70 a room; the result is scandal." He predicts more of this to come because the assistance programs "entice people to become dishonest." It's his opinion that many builders already are apathetic and complacent, afraid to work hard, and want only what they can get out of it.

• **Lefrak and Wall Street**—Lefrak also expresses a distrust of "Wall Street fellows who manipulate figures." This feeling is one reason why there has been no equity financing in Lefrak buildings by any investment companies or syndicates. Lefrak says, "This is a family company. We do our own financing."

But bigger programs demand bigger financing; so Lefrak would like to become a public stock company. In the past, though, his enmity toward "Wall Street manipulators" has stood in the way. Lefrak is reluctant to give up much control, even more reluctant to have traders "dilute" his worth.

A few years ago, talks with Lehman Bros. broke down on Lefrak's refusal to include in the stock issue 40,000 warrants at 10¢ each. Warrants—negotiable options to buy at a given price—are usually issued as a sweetner to help sell a stock issue. Lefrak felt they would only dilute the issue. "I will not permit my company to be exposed to the demands of financial bankers," he says. "The public is buying me, not them."

Currently, though, he is once more trying to "go public." This time he is working with Merrill Lynch, Pierce, Fenner & Smith—but in the same independent way he approaches lenders. "If they can see in us another Transitron, then we can do something. If not, we've done it the hard way before." **END**

BUSINESS WEEK

Index of Advertisers in the May 28, 1960 Issue

THE ADVERTISING COUNCIL..... 177

AIR EXPRESS DIV. OF RAILWAY EXPRESS AGENCY, INC..... 201
Agency—Adams & Keyes Inc.

ALLIED CHEMICAL CORP.....120-121
Agency—Benton & Bowles, Inc.

AMERICAN AIRLINES, INC..... 144
Agency—Young & Rubicam, Inc.

AMERICAN ELECTRIC POWER CO.....36-37
Agency—J. Walter Thompson Co.

AMERICAN MUTUAL LIABILITY INSURANCE CO. 35
Agency—Compton Adv., Inc.

AMERICAN SISALKRAFT CORP..... 197
Agency—Sutherland-Abbott

AMERICAN STEEL & WIRE DIV. OF UNITED STATES STEEL 142
Agency—Batten, Barton, Durstine & Osborn, Inc.

AMERICAN TELEPHONE & TELEGRAPH CO. 3
Agency—N. W. Ayer & Son, Inc.

AMPHENOL-BORG ELECTRONICS CORP... 69
Agency—Doremus & Co.

AUTOMATIC TRANSPORTATION CO..... 168
Agency—Erwin Wasey, Ruthrauff & Ryan Inc.

BANK OF AMERICA.....4th Cover
Agency—Johnson & Lewis, Inc.

BODINE ELECTRIC CO..... 200
Agency—The Fensholt Adv. Agency, Inc.

THE BORDEN CHEMICAL CO..... 97
Agency—Fuller & Smith & Ross, Inc.

BROWN & ROOT, INC..... 147
Agency—D'Arcy Adv. Co.

THE CELOTEX CORP.....136
Agency—MacFarland, Aveyard & Co.

CHAMBERSBURG ENGINEERING CO..... 116
Agency—Willard G. Myers

CHAMPION PAPER & FIBRE CO..... 181
Agency—Campbell-Ewald Co.

THE CHASE MANHATTAN BANK..... 128
Agency—Compton Adv. Inc.

CONTINENTAL ILL. NAT'L BANK & TRUST CO. OF CHICAGO..... 91
Agency—Earl Ludgin & Co.

THE COOPER-BESSEMER CORP.....114
Agency—The Griswold-Eshleman Co.

CORNING GLASS WORKS..... 113
Agency—The Rumrill Co. Inc.

DEARBORN CHEMICAL CO..... 57
Agency—Robertson, Buckley & Gotsch, Inc.

DEJUR-AMSCO CORP. 117
Agency—Adams & Keyes, Inc.

A. B. DICK CO..... 150
Agency—Fuller & Smith & Ross, Inc.

DICTAPHONE CORP. 24
Agency—Young & Rubicam, Inc.

DOUGLAS FIR PLYWOOD ASSN..... 195
Agency—The Condon Co.

DOW CHEMICAL CO.....92-93
Agency—MacManus, John & Adams, Inc.

EAGLE-PICHER CO. 108-109
Agency—The Ralph H. Jones Co.

EATON MFG. CO..... 4
Agency—Clark & Bobertz, Inc.

EDMONT MFG. CO..... 176
Agency—Maurice Mullay, Inc.

EMERY AIR FREIGHT CORP..... 132
Agency—J. M. Mathes, Inc.

ETHIOPIAN AIRLINES, INC..... 190
Agency—Adams & Keyes Inc.

FILER SCHMIDT & CO..... 190
Agency—Miller Adv. Agency, Inc.

FIRST NATIONAL CITY BANK OF NEW YORK 190, 202
Agency—Albert Frank-Guenther Law, Inc.

GARDNER-DENVER CO. 7
Agency—The Buchen Co.

GARLOCK, INC. 12-13
Agency—Hutchins Adv. Co., Inc.

GENERAL ELECTRIC CO.....99-105
Agency—G. M. Basford Co.

GENERAL ELECTRIC CO. (LAMP DEPT.) 169, 170
Agency—Batten, Barton, Durstine & Osborn, Inc.

GENERAL FIREPROOFING CO..... 119
Agency—The Griswold-Eshleman Co.

GENERAL MOTORS CORP., (CHEVROLET MOTORS DIV.) 161
Agency—Campbell-Ewald Co.

GENERAL MOTORS CORP., (DETROIT DIESEL ENGINE DIV.)..... 8-9
Agency—Kudner Agency, Inc.

GLOBE-WERNICKE CO. 21
Agency—Strauchen & McKim

B. F. GOODRICH CO.....22-23
Agency—The Griswold-Eshleman Co.

GOODYEAR TIRE & RUBBER CO. (CHEMICAL DIV.) .....2nd Cover
Agency—Kudner Agency, Inc.

GREAT NORTHERN RAILWAY..... 94
Agency—John W. Forney Inc.

GRINNELL CO., INC..... 154
Agency—Noyes & Co.

GRUMMAN AIRCRAFT ENGINEERING CORP. 14-15
Agency—Fuller & Smith & Ross Inc.

GULF OIL CORP.....162-163
Agency—Ketchum, MacLeod & Grove, Inc.

HALOID XEROX INC.....64-65
Agency—Hutchins Adv. Co., Inc.

HARTFORD STEAM BOILER INSPECTION & INSURANCE CO..... 187
Agency—Wm. B. Remington, Inc.

WALTER E. HELLER & CO., INC..... 78
Agency—Gourfain-Loeff, Inc.

HERTZ SYSTEM, INC., CAR LEASE DIV... 82
Agency—Needham, Louis & Brorby, Inc.

HOOKER CHEMICAL CORP..... 189
Agency—The Rumrill Co., Inc.

HUGHES AIRCRAFT CO.....124-125
Agency—Foote, Cone & Belding

INLAND STEEL PRODUCTS CO..... 68
Agency—Hoffman, York, Paulson & Gerlach, Inc.

INSURANCE CO. OF NORTH AMERICA.... 44
Agency—N. W. Ayer & Son, Inc.

INTERNATIONAL BUSINESS MACHINES CORP. .....3rd Cover
Agency—Benton & Bowles, Inc.

JEFFREY MFG. CO..... 152
Agency—The Griswold-Eshleman Co.

JONES & LAMSON MACHINE CO..... 39
Agency—Henry A. Loudon Adv., Inc.

JOY MFG. CO..... 88
Agency—Erwin Wasey, Ruthrauff & Ryan, Inc.

KEYSTONE STEEL & WIRE CO..... 72
Agency—Thomson Adv., Inc.

KLEINSCHMIDT DATA PROCESSING SYSTEMS DIV. SMITH-CORONA MARCHANT 134
Agency—Alex T. Franz, Inc.

KUHN, LOEB & CO..... 176
Agency—Albert Frank-Guenther Law, Inc.

LYON METAL PRODUCTS, INC..... 135
Agency—Reincke, Meyer & Finn, Inc.

MARINE MIDLAND CORP..... 156
Agency—Batten, Barton, Durstine & Osborn, Inc.

MARTIN CO. 42-43
Agency—Ketchum, MacLeod & Grove, Inc.

McDONOUGH POWER EQUIPMENT, INC... 202
Agency—Bruce Moran & Co.

McGRAW-HILL PUBLISHING CO., INC..... 106

McKESSON & ROBBINS, INC..... 146
Agency—Kenyon & Eckhardt Inc.

McLOUTH STEEL CORP..... 122
Agency—Denman & Baker, Inc.

MICRO SWITCH DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO.....47-54
Agency—Foote, Cone & Belding

MOBIL OIL CO.....86-87
Agency—Compton Adv., Inc.

NATIONAL REJECTORS, INC., SUBSIDIARY OF UNIVERSAL MATCH CORP.. 168
Agency—D'Arcy Adv. Co.

OLIN MATHIESON CHEMICAL CORP., METALS DIV. 63
Agency—D'Arcy Adv. Co.

OTIS ELEVATOR CO..... 164
Agency—G. M. Basford Co.

PAN AMERICAN WORLD AIRWAYS..... 139
Agency—Kudner Agency, Inc.

PITTSBURGH CORNING CORP.....73-76
Agency—Ketchum, MacLeod & Grove, Inc.

PLAX CORP. 83
Agency—Lambert & Feasley, Inc.

RADIO CORP. OF AMERICA (INDUSTRIAL ELECTRONIC PRODS.) 182-183
Agency—Al Paul Lefton Co., Inc.

RAYMOND BAG CORP..... 188
Agency—Western Adv. Agency, Inc.

RECORDAK CORP., (SUB. OF EASTMAN KODAK) 84-85
Agency—J. Walter Thompson Co.

REMINGTON RAND, DIV. OF SPERRY RAND CORP. 137
Agency—Gardner Adv. Co., Inc.

ROCKWELL MFG. CO..... 90
Agency—Marsteller, Rickard, Gebhardt & Reed, Inc.

ROCKWELL-STANDARD CORP. 198
Agency—MacFarland, Aveyard & Co.

ROHM & HAAS CO., (PLASTICS DIV.)..140-141
Agency—Arndt, Preston, Chapin, Lamb & Keen, Inc.

ROTARY LIFT CO..... 157
Agency—Greenhaw & Rush, Inc.

ROYAL McBEE CORP..... 41
Agency—Young & Rubicam, Inc.

RYDER SYSTEM, INC.....58-59
Agency—McCann-Marschalk Co., Div. of McCann-Erickson, Inc.

JOSEPH T. RYERSON & SON, INC..... 18
Agency—The Buchen Co.

SCANDINAVIAN AIRLINES SYSTEM..... 194
Agency—Adams & Keyes, Inc.

SOUTH CAROLINA STATE DEV. BOARD... 191
Agency—Henderson Adv. Agency, Inc.

SPRINGFIELD NEWSPAPERS 60
Agency—Gibney & Barreca

STEELCASE, INC. 126
Agency—Aves, Shaw & Ring, Inc.

J. P. STEVENS & CO., INC..... 174
Agency—Fletcher Richards, Calkins & Holden, Inc.

STRAN-STEEL CORP. (UNIT OF NAT'L STEEL CORP.) 184
Agency—Campbell-Ewald Co.

SUN OIL CO..... 66
Agency—Erwin Wasey, Ruthrauff & Ryan, Inc.

SYLVANIA ELECTRIC PRODUCTS, INC...10-11
Agency—Kudner Agency, Inc.

TENNESSEE DEPT. OF CONSERVATION & COMMERCE 116
Agency—Coggin Adv.

TOLEDO SCALE CO..... 89
Agency—Beeson-Reichert, Inc.

TRAILMOBILE INC. 170
Agency—Farson, Huff & Northlich, Inc.

TREMCO MFG. CO..... 196
Agency—The Henry P. Boynton Adv. Agency, Inc.

UNION TANK CAR CO.....16-17
Agency—Earle Ludgin & Co.

VIKING PUMP CO..... 202
Agency—Wesley Day & Co.

VISION, INC. 6
Agency—Galbraith-Hoffman

WASSELL ORGANIZATION 146, 178
Agency—Wade, Walden & Whitman, Inc.

WESTERN RUBBER CO..... 178
Agency—Muir Adv.

WESTINGHOUSE ELECTRIC CORP.....130-131
Agency—Fuller & Smith & Ross, Inc.

WESTINGHOUSE ELECTRIC CORP. (LAMP DIV.) 148-149
Agency—McCann-Erickson, Inc.

YORK CORP. 158
Agency—Keyes, Madden & Jones

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THE TREND

The Lessons of the Summit Collapse

In the aftermath of the summit, as election-year politics drag us into a post-mortem charged with partisan feelings, there is some danger that this country will ignore one of the most important lessons of the summit failure. This is that we can no longer afford any wishful thinking about the nature of the East-West power struggle and the economic burdens this struggle imposes on us as the leader of the Free World.

When Nikita Khrushchev was talking peace and friendship, it was possible to believe that gradually, as understandings were reached with Russia, these burdens would be lightened—that we would be able to reduce our military spending and shift our foreign aid to a long-term investment basis. After what happened in Paris last week, no realistic person can ignore the necessity to strengthen our military position and reinforce our security by maintaining at a high level both military and economic aid to our allies and friends around the world.

These burdens, heavy as they are, certainly are not beyond our economic strength if only we plan for the long haul and, at the same time, maintain a growing, vigorous economy at home. But we must be sure that we use our strength to best advantage. And, to do that, we must immediately face up to a number of problems.

The most urgent of these is essentially military. We need an audit of our defensive strength. Questions like these must be faced: Do we need to keep the Strategic Air Command on a constant airborne alert? Do we need to plan for a larger output of solid-fuel missiles? Do we need more rapid construction of underground missile silos than has been projected up to now?

The answers that we give to these problems will determine the impact of the breakdown of the summit conference on the U. S. economy (page 32).

As we start the crucially important task of rethinking our policies and programs for the long haul, we must not make the mistake of assuming that "we have been here before." We cannot duplicate the defense-foreign aid mixture that enabled the Free World to stave off the Communist threat during the earlier phase of the cold war. For important changes have occurred within the economy of the Free World. These changes have come to a head in the U. S. balance of payments problem.

The Crucial Problem

The first phase of the cold war coincided with post-World War II reconstruction, when the U. S. was in the economic and financial position to carry the international burdens of both reconstruction and defense virtually single-handed. Since 1945, the U. S. has made available to the world—to our former enemies as well as to our allies—nearly $80-billion, net, of loans, gifts, grants-in-aid, and other forms of assistance. We were able to do this both because an insatiable foreign demand for U. S. goods produced large surpluses in our balance of trade and because we held gold reserves enormously greater than foreign claims against us. We were thus able to cover the "dollar gap" and finance world reconstruction and defense by running continuous deficits of about $1.5-billion a year in the over-all U. S. balance of payments.

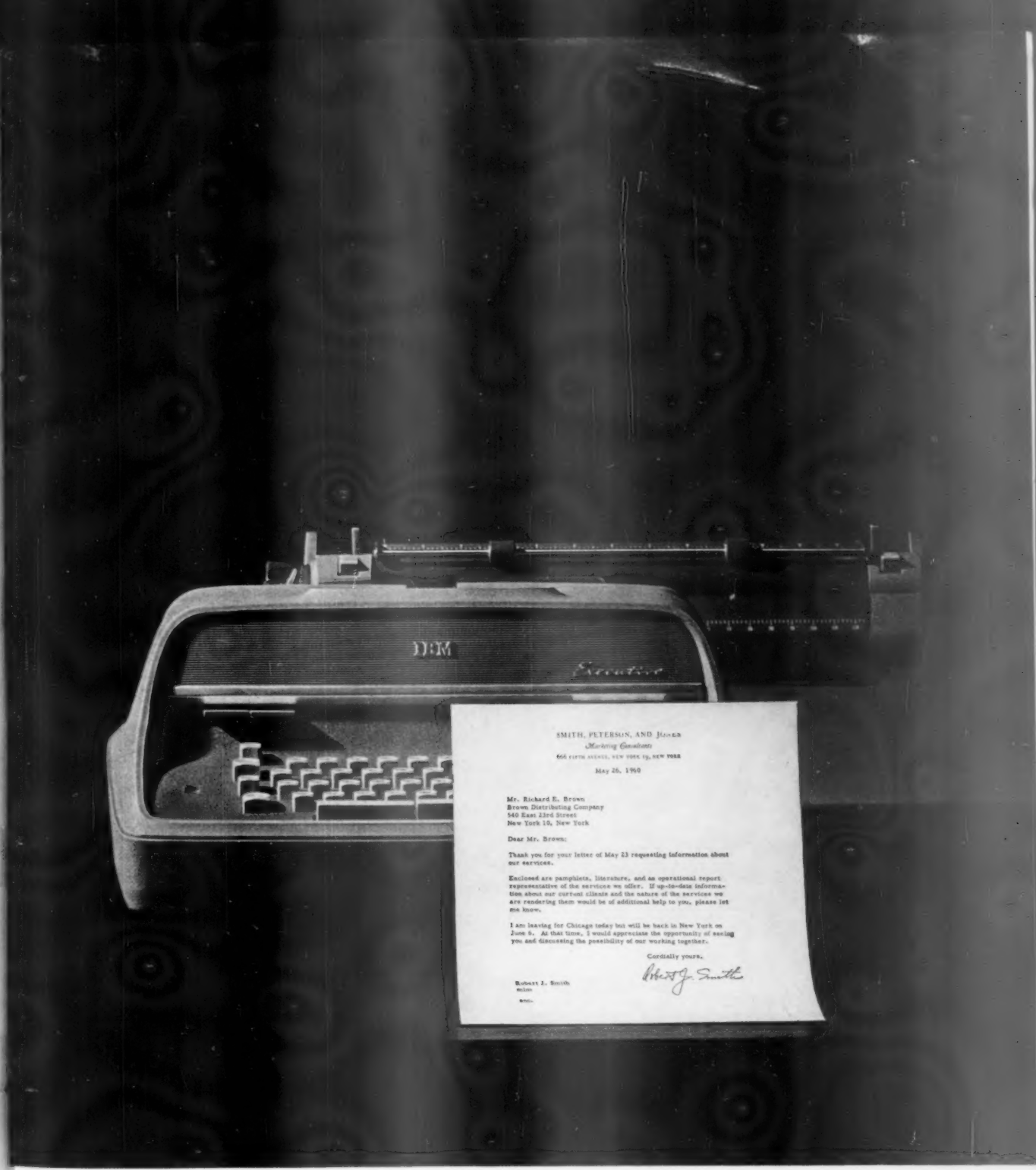
Suddenly the nation has come to realize that that situation has been drastically changed. The modest annual deficits in the over-all U. S. balance of payments more than doubled in 1958 and 1959. Claims against U. S. gold reserves mounted rapidly. Rumors spread abroad—rumors that have been revived since the summit failure—that the dollar was weak.

Charges of the weakness of the dollar, or of the uncompetitiveness of U. S. goods in international markets, now that other economies have been rebuilt, have doubtless been exaggerated. The fact remains that the U. S. is still running surpluses—though smaller ones—in its balance of trade in merchandise. The real source of our large net deficits in the over-all balance of payments has been paying for our troops abroad and our government aid programs. The bill for these two items in 1959 came to nearly $5-billion.

Our deficit may be somewhat smaller this year—but it seems perfectly clear that the problem is not going to evaporate, since the task of boosting our commercial exports sufficiently to give us a trade surplus of something like $5-billion annually in the face of increasingly tough foreign competition is well-nigh impossible. Nor can we—given the practical urgencies of the job of further strengthening the Free World—solve the problem by drastically cutting our defense and aid expenditures.

The U. S., beyond doubt, must continue to carry the heaviest weight but it cannot, and should not, carry it all. Our payments problem goes beyond military and foreign aid burden-sharing. It involves foreign investment, trade relations and artificial barriers to trade, and the international value of currencies. It raises serious questions about whether we have adequate mechanisms for dealing with severe balance of payments strains or crises, should they develop.

The problem of international economic and financial stability cannot be swept under the rug; on the contrary, it calls for immediate study and consultation among the governments of the Free World.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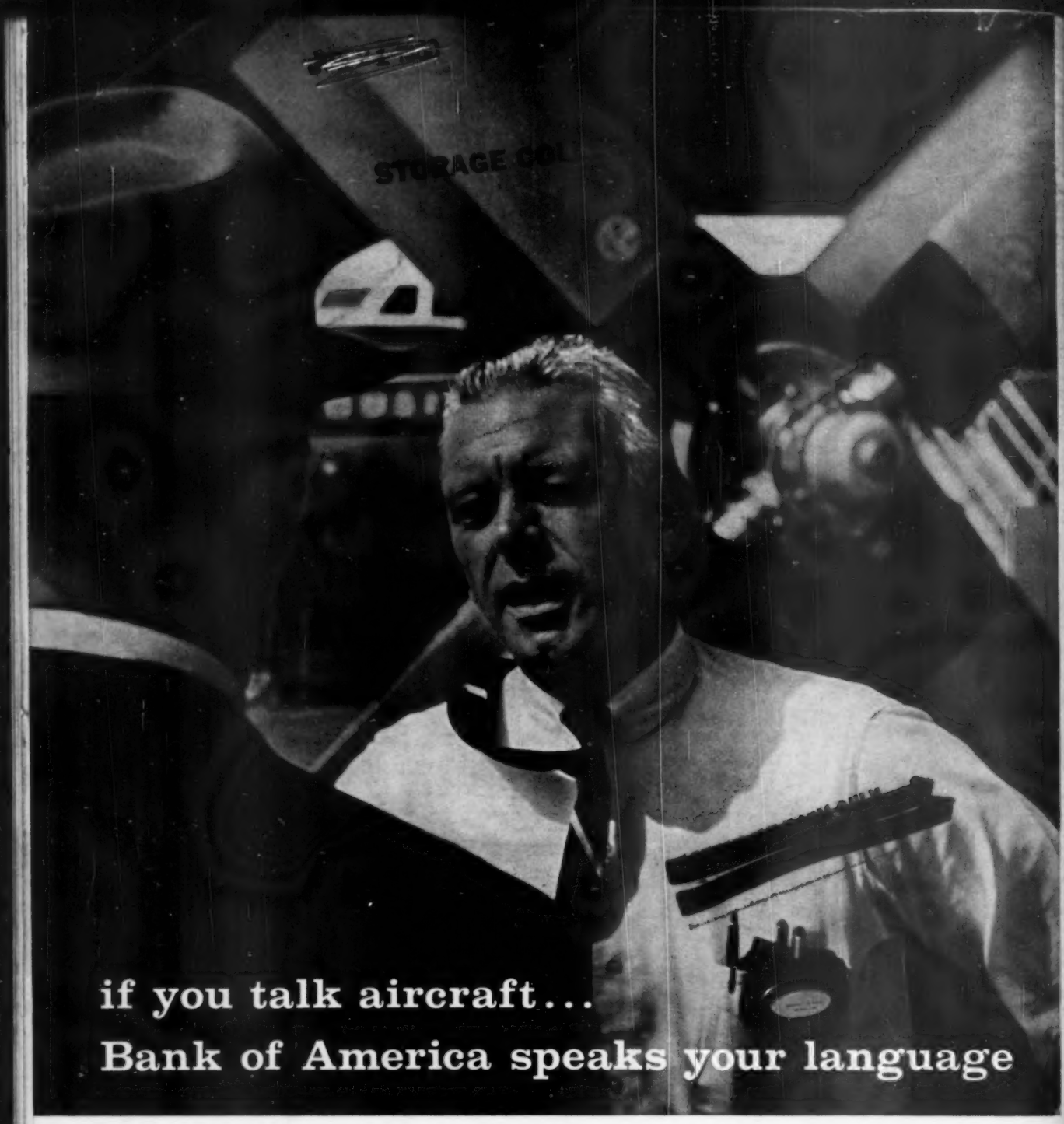

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